BAB V

KESIMPULAN DAN REKOMENDASI

A. Kesimpulan

Dari hasil penelitian ini dapat ditarik beberapa kesimpulan yang dirumuskan sebagai berikut. Secara umum, respon emosi musikal merupakan bagian dari emosi estetis yang belum banyak diteliti dalam bidang psikologi. Respon yang diakibatkan oleh stimuli elemen musikal berupa tempo dan *timbre* hanya sebagian dari penelitian terhadap efek elemen musik lainnya. Walaupun hanya dua elemen musikal yang digunakan dalam penelitian ini, namun reaksi berupa respon emosi yang ditimbulkannya menunjukkan perbedaan signifikan antara subjek pendengar yang terdiri dari kelompok pengrawit (musisi) dan pandhemen (non musisi).

Hasil penelitian yang diperoleh melalui eksperimen ini juga memberikan informasi mengenai pentingnya elemen tempo sebagai stimulator respon emosi musikal. Terujinya hipotesis yang diajukan dalam penelitian ini maupun ungkapan kualitatif yang terucap dari subjek penelitian menunjukkan hal tersebut. Selain itu, pengaruh stimulasi elemen tempo dan *timbre* serta efek terhadap respon emosi musikal yang ditunjukkan oleh penelitian ini melengkapi hasil-hasil penelitian yang pernah dilakukan sebelumnya.

Sementara itu, hasil pengujian secara statistik menunjukkan bahwa tidak semua respon emosi yang ditunjukkan subjek berupa reaksi atas rasa tidak menyenangkan. Ada sebagian respon emosi musikal subjek menunjukkan reaksi yang menyenangkan. Hal ini dapat dimengerti karena stimulasi musik gamelan yang diperdengarkan kepada subjek terdiri dari empat variasi. Pemberian perlakuan pertama berbentuk gendhing soran standar yang tidak dimanipulasi dan sudah familiar didengar menyebabkan subjek merespon dengan reaksi positif dan menyenangkan, sementara variasi kedua dari gendhing yang sama dengan tempo yang sudah dimodifikasi tetapi tetap dengan *timbre* perunggu direspon baik secara positif, maupun negatif. Perbedaan terutama terletak pada respon antar subjek, karena pada variasi ini dibutuhkan kepekaan yang akurat dari pendengar khususnya kemampuan membedakan *timbre*.

Dalam penelitian ini *timbre* yang digunakan berasal dari perangkat alat musik yang sama tetapi dengan material yang berbeda. Perbedaan kualitas suara pada *timbre* gamelan perunggu dan besi adalah terletak pada vibrasi dan ketajaman suara yang dihasilkan. Penelitian ini sekaligus menunjukkan bahwa timbre adalah elemen penting dalam musik yang memerlukan perhatian lebih banyak.

Untuk pemberian variasi gendhing selanjutnya, hanya pendengar terlatihlah yang dapat dengan segera membedakan *timbre* yang baik dan kurang baik, dalam hal ini respon kurang menyenangkan diberikan oleh

sebagian besar subjek pengrawit. Namun hasil respon emosi musikal dari pengrawit tidak semua menunjukkan respon yang positif. Berbeda dengan kelompok pandhemen yang merespon secara positif walaupun tempo musik yang diperdengarkan mungkin tidak seperti biasanya tetapi hanya sebagian kecil merespon secara negatif. Bahkan sebagian besar pandhemen tetap merespon dengan positif.

Dari variasi keempat (gendhing diperdengarkan dengan tempo yang telah dimodifikasi menggunakan *timbre* besi) dapat disimpulkan bahwa pada variasi yang terakhir ini respon emosi musikal yang tidak menyenangkan terjadi pada hampir semua kelompok subjek kecuali sebagian subjek pandhemen. Selain tempo yang tidak seperti aslinya, kualitas warna suara yang ditimbulkan pun menimbulkan rasa tidak menyenangkan pada hampir seluruh pengrawit. Sebagian subjek pandhemen memberi respon menyenangkan karena kekurang-pekaan dan keterbatasan kemampuan mereka dalam mendeteksi warna suara atau tempo yang benar.

Oleh sebab itu dapat disimpulkan bahwa respon yang diberikan ketika mendengarkan musik sangat tergantung pada faktor latar belakang pendengarnya. Baik latar belakang budaya, pengalaman, pengetahuan, dan kepekaan pendengar yang mengalaminya.

Dari hasil penelitian ini juga terlihat bahwa faktor budaya, pengalaman, dan kepekaan memberikan sumbangan yang paling berarti bagi respon

emosi musikal. Terutama pengalaman secara aktif dalam bidang musik bagi pendengar yang berprofesi bidang musik.

Secara keseluruhan, sebagai penelitian dasar, pengolahan terhadap rangkaian eksperimen ini menunjukkan bahwa stimulasi elemen tempo asli perunggu dan tempo asli besi serta tempo modifikasi perunggu dan tempo modifikasi besi berpengaruh secara sangat signifikan terhadap respon emosi musikal pendengarnya.

Terlihat pula adanya perbedaan pengaruh antara stimulasi elemen tempo asli perunggu dan tempo modifikasi perunggu dengan tempo asli besi dan tempo modifikasi besi terhadap respon emosi musikal pendengar, selain juga bahwa kelompok pengrawit menunjukkan kepekaan yang lebih tinggi dari pada kelompok pandhemen dalam membedakan tempo dan *timbre* baik asli maupun modifikasi.

Tempo teruji sebagai elemen terpenting dalam musik gamelan Jawa yang memiliki kekuatan untuk menimbulkan respon dengan persepsi yang menyertainya, sementara respon emosi yang ditimbulkan oleh *timbre* dalam gamelan Jawa juga sangat terkait dengan persepsi pendengarnya. Oleh karena itu, aspek kepekaan, pengalaman, dan aspek sosiobudaya adalah hal-hal yang perlu dipertimbangkan dalam berbagai kajian dalam psikologi musik.

Hasil akhir penelitian ini melengkapi hasil-hasil penelitian yang pernah dilakukan terhadap musik Barat bahwa tempo adalah elemen yang penting

dalam musik, karena respon emosi musikal pendengar musik gamelan Jawa dalam penelitian ini teruji lebih kuat dipengaruhi oleh elemen tempo dari pada elemen *timbre*.

B. Rekomendasi

Penelitian dasar ini dilakukan pada lingkup yang sangat terbatas, sesuai dengan konteks masalah dan subjek pendukung yang khas. Sehingga belum dapat dipastikan mana temuan yang dapat digeneralisir. Selain itu, penelitian sejenis dengan materi musik gamelan Jawa belum pernah dilakukan. Maka tidak ada perbandingan kelemahan atau kelebihan secara persis. Namun berdasarkan temuan-temuan yang diperoleh dari penelitian ini tersebut maka ada beberapa hal yang dapat disarankan seperti uraian di bawah ini.

1. Saran Umum

Respon emosi musikal adalah terminologi respon emosi yang tidak terdapat dalam *mainstream* psikologi emosi umum. Berdasarkan pemahaman dari aspek antropologis, sosiologis maupun filosofis musik yang lebih dikenal adalah terminologi emosi estetis. Sementara istilah emosi musikal adalah salah satu bagian dari terminologi tersebut. Respon emosi musikal memiliki sumbangan atau paling tidak akan melengkapi pengembangan pengetahuan tentang emosi dan membuka bidang kajian baru yaitu psikologi musik.

Penelitian emosi secara umum kiranya perlu juga dilengkapi oleh hasil penelitian tentang emosi musikal. Mengingat emosi adalah aspek yang tidak dapat dipisahkan dari keberadaan manusia dan musik adalah salah satu dari perilaku manusia. Tentu saja ke depan diharapkan, teori dan metode pendekatan terhadap respon emosi musikal dalam penelitian ini dapat menjadi titik pijak bagi penelitian sejenis atau untuk mengkaji respon emosi musikal lainnya.

Apabila penelitian sejenis dapat dilakukan di berbagai wilayah Nusantara maka pengembangan selanjutnya adalah pada aplikasi terapi musik yang khas Indonesia atau pemanfaatan di luar kepentingan musik. Sehingga terbuka kemungkinan luas disiplin psikologi musik Indonesia untuk sejajar dengan disiplin sejenis secara internasional.

Walaupun saat ini tidak dimaksudkan untuk diaplikasikan atau menjawab semua pertanyaan yang terkait dengan respon emosi musikal. Penelitian ini masih dirasa perlu menyertakan lebih rinci aspek fisiologis dan neurologis agar evaluasi terhadap perilaku fisik selama eksperimen sebagai bagian dari respon emosi dapat lebih detil.

2. Rekomendasi bagi Peneliti selanjutnya

Secara metodologis penelitian ini menggunakan pendekatan eksperimen agar lebih akurat dalam mendeteksi respon yang diberikan oleh pendengar selain memverifikasi teori yang telah ada sebelumnya. Dengan

mengetahui respon emosi musikal, peneliti berlatar belakang musik barat dapat mengembangkan diri dengan penelitian lintas budaya dan lintas disiplin. Karena hasil penelitian sejenis akan berguna sebagai latihan intelektual dan pengembangan bagi disiplin psikologi dan musikologi di Indonesia.

Hasil penelitian ini menunjukkan bahwa kajian serupa tidak harus dilakukan oleh peneliti dalam bidang psikologi musik saja tetapi membuka peluang peneliti-peneliti dalam bidang lain seperti musikologi, psikologi budaya dan etnomusikologi. Dengan terlibatnya peneliti-peneliti dari bidang dan metode yang beragam tersebut maka dimungkinkan untuk diperoleh analisis yang lebih komprehensif.

Hal ini dimungkinkan karena wilayah Indonesia dengan beragam seni budayanya belum banyak digali demi pemanfaatan ilmu pengetahuan. Metode dan penyempurnaan alat ukur dalam penelitian ini kelak dapat digunakan pada penelitian sejenis di berbagai wilayah Indonesia mengingat elemen tempo dan *timbre* adalah parameter musikal yang universal. Elemen tempo secara historis telah digunakan untuk keperluan penyembuhan tetapi baru sekarang penelitian objektif berkembang guna memperkuat dan memvalidasi kelengkapan penyembuhan melalui suara. Oleh karenanya penelitian ini merekomendasikan pendekatan eksperimen sebagai metode penelitian yang lebih akurat.

Upaya pengembangan disiplin psikologi musik di Indonesia seyogyanya dapat pula ditindaklanjuti dengan pendekatan multi disiplin agar hasil yang diperoleh lebih komprehensif. Selain itu masih terdapat dua elemen dasar musik yang pengaruhnya terhadap respon emosi musikal belum diteliti yaitu elemen : *pitch* dan dinamika. Hingga saat ini belum pernah ditemukan penelitian mengenai kedua elemen musik tersebut dalam musik etnis Indonesia yang terkait dengan psikologi khususnya respon emosi musikal.

Hal ini sekaligus menunjukkan bahwa masih terbuka kesempatan luas untuk menggali potensi seni budaya lokal yang bermanfaat tidak hanya bagi pengembangan ilmu pengetahuan tetapi juga bagi makna sehat bangsa ini. Oleh karena itu peneliti merekomendasikan kepada peneliti bidang psikologi dan musikologi agar dapat lebih banyak berperan dengan mulai menyelidiki aspek saintifik dan aplikatif dari potensi seni budaya Nusantara.

Landasan teori yang dipakai dalam penelitian ini masih menitikberatkan kajian psikologi dan musik. Kajian dari disiplin ilmu lain seperti sosiologi, antropologi, budaya dan filsafat masih dapat ditambahkan dalam penelitian lebih lanjut agar diperoleh tinjauan yang lebih menyeluruh. Selain itu, hasil penelitian ini juga masih dapat dikembangkan jika dilengkapi dengan telaah dari bidang ilmu terkait seperti psikoneurologi, psikofisiologi, dan psikoakustik yang tidak lepas dari peran fisika bunyi dalam musik.

3. Rekomendasi bagi Perguruan Tinggi

Sesuai dengan hasil penelitian ini baik secara metodologis maupun teoritis sebagai pendukung yang penting, kesempatan untuk melakukan interdisiplin juga perlu ditumbuhkembangkan di lembaga Pendidikan Tinggi. Mengingat selama ini penelitian lintas disiplin masih belum banyak dilakukan ataupun didukung oleh lembaga Pendidikan Tinggi. Topik interdisiplin yang digali dari budaya Nusantara secara langsung akan memberikan warna dan menunjukkan kepada dunia luar bahwa bangsa ini memiliki keistimewaan dengan seni budaya tradisinya.

Informasi saintifik bagi civitas akademik dalam perkembangan dunia teknologi yang sedemikan pesatnya sangat diharapkan dapat dimiliki oleh kaum intelektual dan akademisi di manapun. Oleh karenanya lembaga Pendidikan Tinggi secara legal formal turut bertanggung jawab atas pengembangan disiplin yang kemungkinan besar kelak dapat menjadikan psikologi musik di Indonesia memiliki keunikan dan benar-benar menjadi potensi budaya lokal.

Oleh karena itu metode penelitian dan cara berpikir yang non-paradigmatik dirasa perlu dikembangkan. Agar situasi dan suasana kehidupan akademis selalu inovatif maka hal-hal yang dirasa baru tetapi bermanfaat perlu diperhatikan secara seksama. Peneliti juga merekomendasikan kepada lembaga Pendidikan Tinggi untuk lebih kreatif

dalam merencanakan penelitian baru agar tidak hanya daur ulang dengan mono disiplin yang sekarang sudah mulai ditinggalkan.

Secara khusus bagi pengembangan disiplin psikologi musik, penelitian yang bersifat dasar masih perlu dilakukan. Pengembangan disiplin yang baru ini merupakan kesempatan yang sangat menguntungkan bagi peneliti di Indonesia. Dalam artian agar bangsa ini tidak hanya mengkonsumsi teori yang sudah tersedia dari peneliti di luar budaya lokal. Tetapi sebaliknya bahwa peneliti Indonesia dapat berperan secara aktif melalui hasil penelitiannya bagi pengembangan psikologi musik secara global.

SUMMARY

THE EFFECTS OF TEMPO AND TIMBRE ELEMENT STIMULATION ON JAVANESE *GAMELAN'S* MUSIC TOWARDS THE MUSICAL EMOTIONAL RESPONSES

1. Background and Problems

Music is one of the prominent cultural activities that is most associated closely to the human existence. For every nation, music contributes to significant life events in various ways through many ceremonies that marked the significant events in people's life: weddings, funerals, parties, state ceremonies of commemoration, coronations, and political rallies, all with their fanfares and anthems.

Since music goes together with human activities, it promotes also more attention and interest in musical based research, either to contribute to the advancement of musicology, as well as the growth of interrelated disciplines.

Music is heard and went through its the listeners. Therefore, music is related to psychological factors that play a significant role to those listening process. Consequently, one of the most related field that correlates to music is psychology. It could be understood, since psychology deals with human behavior. Many psychological aspects are expected to explain various activities people are dealing with everyday, including the everyday music listening.

The enhancement of psychology as science has shown that psychology is not developing just one single paradigm. It deals not only with cognitive and behavioral aspects, but also biological and social matters. However, there is always a divergence in efforts of the conception of theories. Some streams are still based on the "*hard science*" which concentrated to the "*body*" issues including neural systems, physiological and biological aspects, emerges for example in psychoneurology or psychoimmunology, whereas on the other hand, psychology is particularly

interested in answering the "*mind*" problems that have a very different approach.

Generally, it could be said that the psychological approach to music tend to look for an explanation about how dan why some people are experiencing emotional reactions from music and how the music experiencing process will end up with the expression of emotion. The streams in psychology will then influence how music listening would be pictured. The hard science approach for example will correlates music to the neural and physiological aspects, while other streams are interested to find other explanations.

From those explanations, it would be understood that psychology and music are possibly associated by a comprehensive explanation on emotions, since music listening will be tied in with emotional reactions. Psychology and musicology could be understood all together since they also share the same structure of "body" and "mind" approach: the music instruments are the "body" in psychology, whereas the "mind" is the music itself.

For years, researches on emotional responses related to music is a problematic matter since first, emotional reaction is generally understood in terms of adaptive function related to the continuity of biological cycle. Secondly, researchers interested in emotional reaction issues are facing a wide range of individual variability (Sloboda, 1996). Thirdly, the experimental inquiries that are attempted to measure the affection responses on music listeners tend to be complicated since music listening will come up with diverse spontaneously reaction (Neale and Liebert,1986).

Drawings on ecological psychology mentioned that perceptual information in clearing up the "object and events" or "perception and action" in the world are links that could not be broken. One of the interrelations among individuals, groups, and environment produced numbers of media communications. Lund (1981) mentioned that one of

the outcome of the interaction between human and the environment is sound instruments. Sounds from the nature that are produced by humans through instruments they need are called musical instruments (Ferdinandus, 1999).

With regards to Juslin (2003), emotion is inferred on the basis of three kinds of evidence: (a) self-report, (b) behavior, and (c) physiological reaction. The most common, and deceptively simple, way to measure emotional responses to music is by self-report – either verbal (for example adjective checklist, quantitative ratings, questionnaire, free description) or non-verbal (moving a slider, pressing a bar, drawing a picture). Verbal reports are associated with problems such as demand characteristics and choosing which words to include in checklists or scales. Non-verbal reports involve the problem of interpreting the responses in a meaningful way. Yet, self-report is the most direct evidence of emotion and cannot be excluded despite its problems.

Juslin also mentioned, since the use of self-reports is not always possible (or reliable), another approach has been to measure different forms of behavior or products of behavior. This may include facial expressions, vocalizations, and body language. This form of evidence can be valuable because it is less subject to demand characteristics than are self-reports, although it is problematic in that felt emotion does not always result in specific behavior. The third kind of evidence used to infer emotions involves different physiological measures of emotion. Those three evidences were considered in this research, either through self reports, facial and emotional expression observation, or focus group discussion session.

From the anthropology point of view, Indonesia is an enormous nation with various cultures and traditional music. According to Haryono (2004), looking into records from the pre historic period will come up with a presumption that membranofon is believed to be an earlier gamelan

instrument, prior to the cultural contact with India, which also used in ritual ceremonies.

A number of research findings regarding music and emotion verified that tempo and timbre are the most important elements in music. However, most of the study were based on Western music, while less has been done on the Indonesian music framework, especially on musical emotional responses, either pleasant or unpleasant, as well as the using of traditional Indonesian musical instrument. Most of studies in music and emotion are concerned with the Western culture and there is no research on the same topic that involved Indonesian music yet.

This experiment will explore the Javanese gamelan music which has a unique characteristic and difference rule of performing compared to Western music. Therefore, the use of tempo and timbre as a primary element in music related to Javanese gamelan music will get a different explanation. The role of *pengrawit* and *pandhemen* as subjects in this exxperiment became important, since through these two groups it could be described how the sensitivity differences of the "musicians" as musically trained listeners and the "naive" or musically untrained listeners (non musicians) listener come forward.

According to Martopangrawit (1975), theoretically, the Javanese gamelan's music consists of (1) rhythm with aughmented and diminished syntactical unit which is related to the slow and fast tempo, and (2) songs or repertoires which consists series of organized tones that sounds good while played on. This experiment is based on the above theory, and was expected to contribute to the enhancement of musicology and applied psychology.

Therefore, the basic problem of this experiment is **how the tempo and timbre element of Javanese gamelan's music influences the musical emotional responses of the listeners.** Despite those objectives mentioned above there are some specific problems which are:

a. How is the effect of unmodified tempo and timbre element on emotional musical responses of the listeners.
b. Are there any effects of modified tempo and timbre element stimulation towards the emotional musical responses of the listeners.
c. Are there any different effects of modified and unmodified tempo and timbre element stimulation towards the emotional musical responses of the listeners.
d. Will tempo be the most important element in music that potentially stimulate emotional responses?
e. Will the musical emotional responses that are stimulated by the timbre element of the Javanese gamelan be more effected by the listener's perception, experience, or social culture and not only by the physics factors
f. Will the musical emotional responses of the Javanese gamelan listeners be more effected by the tempo element compared to the timbre element.

2. Research Purpose

Based on thoughts and overviews mentioned above, this research is not intended to come up with a direct and applicable answer, but more to find a basic qualification that contribute to the music creation in many ways, as well as to become a theoretical framework towards upcoming researches.

Moreover, the purpose of this research is also to obtain a more comprehensive picture from a different point of view out of musicology that will contribute to a more psychological approach towards the improvement of music. A number of more specific research purpose is then stated as follows:

a) to examine the influences of the tempo in Javanese gamelan music towards the musical emotional responses of musically

trained listeners (musicians) and musically untrained listeners (non-musicians);

b) to examine the influences of the timbre in Javanese gamelan music towards the musical emotional responses of musically trained listeners (musicians) and musically untrained listeners (non-musicians);

c) to determine the musical emotional responses between those musically trained listeners (musicians) and musically untrained listeners (non-musicians);

d) finding out the meaning of tempo and timbre as musical elements in Javanese gamelan music that have an effect on musical emotional responses.

e) to determine the role of tempo as an important aspect in music that potentially stimulate emotional responses.

f) finding out that musical emotional responses which are stimulated by the timbre of the Javanese gamelan instrument is more effected by the listener's perception, experience and sociocultural aspects, than only by physics factors

g) to have an empirical tested evidence that musical emotional responses of the Javanese gamelan listeners are significantly more effected by the tempo element compared to the timbre element.

3. Theoretical Framework and Hypothesis

One primary goal in research on music and emotion is to explain how, precisely, musical events can induce emotions in listeners. This issue is still puzzling to musical psychology researchers. One problem seems to be that the conditions of emotion-elicitation in music and in real life are quite different. In the paradigmatic case, an emotion is aroused when an event is appraised as having the capacity to influence the goals of the perceiver (Oatley, 1992). According to Waterman (1996) and

Sloboda (1991), there are differences regarding the musical emotional responses between those musically trained listeners and musically untrained listeners.

Regardless situational and personal factors, musical factors such as timbre (known also as the tone color, the quality of sound characteristic of a particular instrument or voice that is determined by the number and intensity of the overtones present in the sound in addition, as well as the fundamental characteristics of combined ordinary music instruments) and tempo (the speed of musical compositions or sections of it) have also effects on tension and stressful conditions. However, among those influencing factors on musical emotional responses, tempo is presumed to be the most important one (Gundlach, 1953; Hevner, 1937;Juslin, 1997; Rigg, 1964; Scherer dan Oshinsky, 1997). On the other side, less has been done to analyze systematically how timbre influence the emotional expression (Juslin dan Sloboda, 2001).

Among those musical elements stimulations, unpredictable tempo modification and unpredictable timbre modification are assumed to cause stimulated effects. On the contrary, relaxing effects are obtained from constant or gradually modified tempo and timbre. For that reason, musical elements (either tempo or timbre), knowledge and environmental aspects as well as cultural aspects will influence musical emotional responses of the listeners(DeNora, 2000; Windsor, 2000).

Accordingly, this experimental research is proposed to examine the stimulation of tempo and timbre elements towards musical emotional response that involve a number musician as musically trained listeners, and non- musicians as musically untrained listeners as research subjects. The research framework will be shown in Fig. 1.

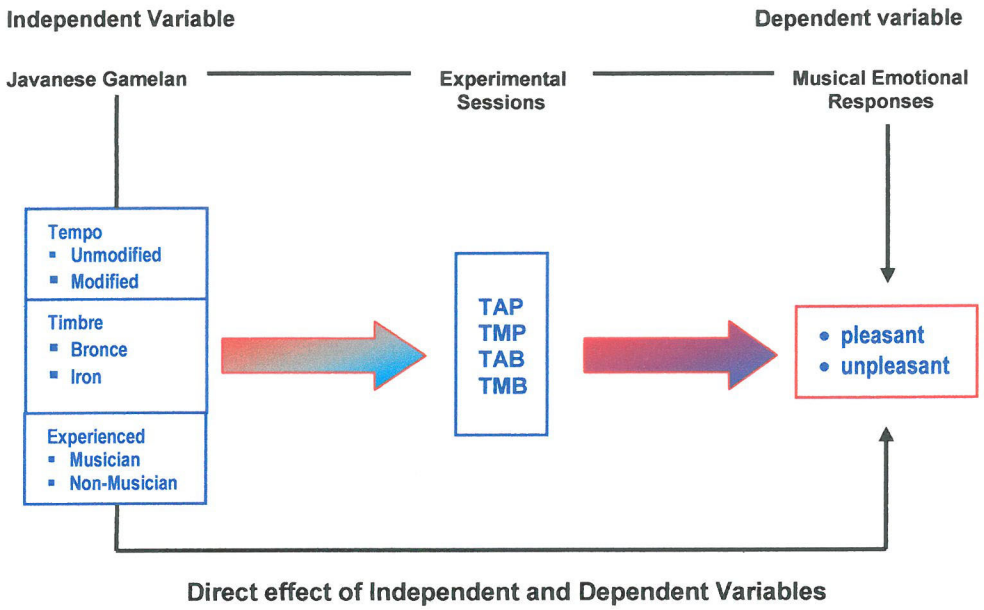

Fig. 1.
Research Framework

(Notes: *TAP = Unmodified Bronze tempo, TMP = Modified Bronze tempo, TAB = Unmodified Iron tempo, TMB = Modified Iron tempo*)

Hypothesis

In line with those previous researches and the theoretical background, the major hypothesis is stated as follows:

Major Hypothesis:

The tempo and timbre elements stimulation on Javanese gamelan music will influence the musical emotional responses of its listeners.

The major hypothesis will be carried out together with three minor hypothesis as follows:

Minor Hypothesis 1:

There are difference influences of unmodified bronze tempo and unmodified iron tempo stimulation towards the musical emotional responses of those listeners.

Minor Hypothesis 2:

There are difference influences of modified bronze tempo and modified iron tempo stimulation towards the musical emotional responses of those listeners.

Minor Hypothesis 3:

There are differences between the unmodified and modified bronze tempo and the unmodified and modified iron tempo stimulation towards the musical emotional responses of those listeners.

Besides those minor hypothesis, this research also proposed three research enquiries as the following:

Research enquiry 1:

tempo will be the most important element in music that potentially stimulate emotional responses

Research enquiry 2:

the musical emotional responses that are stimulated by the timbre element of Javanese gamelan will be more effected by the listener's perception, experience, or social culture and not only by the physics factors

Research enquiry 3:

the musical emotional responses of the Javanese Gamelan listeners will be more effected by the tempo compared to the timbre element.

4. Research Methods.

4.1. Participants

The participants of this study consist of 16 Javanese music musician called *pengrawit* and 16 non-musician called *pandhemen* who are participating in this experiment. The musisicians are musically trained persons who work as professionals at the Indonesian Radio Broadcasting of Yogyakarta, and those 16 non musicians are musically untrained persons who regularly listen to the Javanese gamelan repertoires aired

through several radio local programs. They are about 35 – 55 of age, and devided into 8 groups, so that one experiment group consists of 4 persons. Most of the musicians are the Karawitan High School or Bacheloring in Karawitan (Javanese gamelan music).

4.2. Equipments

Equipments in this experimental research were supported mainly by the Javanese gamelan music which was played using the bronze and iron gamelan, twice for each, once performing the unmodified tempo and once the modified tempo. Subjects are listening to the music through 4 units computers using *Sound Forge 6.0* software and wearing earphones.

The *Sound Forge 6* program is used to observe when subjects are experiencing their unpleasant feeling. They were asked to press the computer keyboard directly when their judgement for the played repertoire was unpleasant. The computer specification which was used to operate those experimental sessions are: Intel Pentium 4 2, 4A Cache L2 1MB, MB Biostar Chipset Intel 865PE, RAM 256 MB PC 3200 Kingston DDR dual CH, Hardisk 40 GB 7200 RPM, AGP 8x Power Color GF 4Mx440 64MB, with a *sound card on board* Codex 6 Ch. The earphones are SONCM SM-622M.V. type. The quality of the music played is of the same quality and condition for all sessions.

There was also a hidden video camera prepared for the purpose of observational sessions to detect the facial and emotional expressions during the experimental sessions.

4.3. Stimuli and Manipulated Variables

The stimuli of this experiment is *Gendhing Ladrang Agun-Agun*. This repertoire consists of two kind of rythms which are 1) *merong* - in slow tempo, and 2) *inggah* – in fast tempo. The manipulation of the stimuli was done through the substitution of both parts. The slower tempo was swicth over the faster, and so does the faster towards the slower.

Consequently, the faster part of the repertoire became slower, and the slower part became faster.

Using the modified tempo, this repertoire was played twice: the first time it was played on the bronze gamelan resulting in a unmodified tempo, the second was played on the iron gamelan resulting in a unmodified tempo. Despite of this modified tempo, the repertoire was also played twice using the modified tempo, once using the bronze gamelan resulting in modified tempo, and the later using the iron gamelan, resulting in an modified tempo.

The entire experiment would then consisting of four sessions: The unmodified bronze tempo, modified bronze tempo, the unmodified iron tempo and modified iron tempo. There were no modification made concerning the melody and the dynamic elements.

4.4. Procedures

An experimental laboratory was prepared to carry out the experiment, using a room that can engage 4 persons every session. A hidden camera was placed inside a small window using a one way mirror. The subjects took their own seat, were asked to be relaxed, while the administrator read the experiment procedures for them.

The subjects were asked to listen to the modified and unmodified *Ladrang Agun-agun*, which were played 4 times continuously. The unmodified bronze tempo, modified bronze tempo, the unmodified iron tempo, and modified iron tempo were all played based on a counter balance procedure. Once the subjects are finished with one session, they were asked to report their emotional responses. Each session is completed either in 3.30 minutes for the unmodified tempo or 5.30 minutes for the modified tempo, ending up with a sum of 38 minutes including the self-report process of 5 minutes each. The modified tempo took a longer duration since some parts of the repertoire were played slower in order to gain the difference.

During the entire experimental process, the hidden camera operated behind the window recorded the facial and emotional responses of the group randomly. The mood, musical emotional responses and facial emotional expressions were among those psychological aspects that were measured upon each treatment.

One week later, on January 2005, five subjects were chosen to gather for the purpose of a focus group discussion. The five were representing the musically trained and untrained listeners. The focus group discussion analysis contributed to the whole experiment analysis thoroughly.

5. Findings and Discussions

The analysis of this experimental research are based on three parts which are the quantitative analysis, qualitative analysis and discussions. The quantitative analysis was built not only by the statistical findings, but also by the assumption analysis, to test the concurrence between the empirical data obtained and the analysis model. There were the normality test and variance homogeinity test. The quantitative analysis was brought together with the qualitative analysis based on the focus group discussion content.

From the continuous sessions, it could be seen that the musicians as musical trained listeners are more responsive towards the modified sessions. It could be seen from the following table that generally, musicians are more sensitive about modified tempo, especially when the repertoire was played on a modified timbre (7 subjects at Modified Iron Tempo, TMB, compared to 2 subjects). None of the musicians were displeased when the unmodified bronze tempo as the real and standard repertoire was played, whereas 8 non-musicians were reporting unpleasant response although nothing has been changed concerning the music heard.

Table 1.
Musical Emotional Responses of the musician and non-musician experimental subjects

Session	Responses	Pengrawit	Pandhemen
TAP	pleasant netral Unpleasant	9 subjects 7 subjects none	None 8 subjects 8 subjects
TAB	pleasant netral Unpleasant	2 subjects 8 subjects 6 subjects	none 5 subjects 11 subjects
TMP	pleasant netral Unpleasant	2 subject 7 subjects 7 subjects	2 subjects 6 subjects 8 subjects
TMB	pleasant netral unpleasant	1 subjects 5 subjects 10 subjects	1 subject 13 subjects 2 subjects

5.1. Hypothesis testing

The major hypothesis stated for this experiment was to examine whether **the tempo and timbre element stimulation on Javanese gamelan music will influence the musical emotional responses of its listeners.** Using the repeated measure method as seen in Table 2 and 3 below, there was a sum square of 52,531 on a degree of freedom of 1. The F value that is equal to 4.968 was significant ($p<0.05$). It means that the statistical analysis supported the major hypothesis proposed significantly.

The figures obtained in table 2 and table 3 also strengthen the assumptions proposed, that there are influences of unmodified bronze tempo and unmodified iron tempo stimulation towards the musical emotional responses of those listeners, and also that there are influences of modified bronze tempo and modified iron tempo stimulation towards the musical emotional responses of those listeners. Minor hypothesis 1 were

tested on a value of F= 17.020 (p<0.01), whereas minor hypothesis 2 was also tested on a base of p<0,01 for a 39.519 F value.

Table 2.
Inter Element Repeated Measure Summary

Variance	Tempo	Timbre	SS	df	Mean	F	p	R Eta
Tempo	Linear		2096.281	1	2096.281	100.833	.000	.771
Tempo * Status	Linear		8224.031	1	8224.031	395.584	.000	.930
Error (Tempo)	Linear		623.687	30	20.790			
Timbre		Linear	351.125	1	351.125	23.792	.000	.442
Timbre * Status		Linear	703.125	1	703.125	47.643	.000	.614
Error (Timbre)		Linear	442.750	30	14.758			
Tempo * Timbre	Linear	Linear	536.281	1	536.281	50.722	.000	.628
Tempo * Timbre * Status	Linear	Linear	52.531	1	52.531	4.968	.033	.142
Error(Tempo*Timbre)	Linear	Linear	317.187	30	10.573			

Table 3.
Inter Status Repeated Measure Summary

Variance Source	Stim	SS	df	Mean	F	p
Stimulus	Level 1 vs. Level 2	1755.281	1	1755.281	80.464	.000
	Level 2 vs. Level 3	731.531	1	731.531	16.529	.000
	Level 3 vs. Level 4	19.531	1	19.531	.677	.417
Stimulus * Status	Level 1 vs. Level 2	371.281	1	371.281	17.020	.000
	Level 2 vs. Level 3	4117.781	1	4117.781	93.044	.000
	Level 3 vs. Level 4	1140.031	1	1140.031	39.519	.000
Error(Stimulus)	Level 1 vs. Level 2	654.438	30	21.815		
	Level 2 vs. Level 3	1327.688	30	44.256		
	Level 3 vs. Level 4	865.438	30	28.848		

Testing on minor hypothesis 3 shown that F value of 93.0444 is significant on the p level of 0.01. Therefore, it is significantly tested that there are differences between the unmodified and modified bronze tempo and the unmodified and modified iron tempo stimulation towards the musical emotional responses of those listeners.

5.2. Research enquiries

The first research enquiry assumed that tempo will be the most important element in music that potentially stimulates emotional responses. To answer this question, it should be seen that the uppermost emotional response which caused by the Javanese music sessions as a stimuli was obvious during the experiment through the observation process. The emotional detection process recorded many events showing angry and unpleasant reactions happened during the modified repertoire was played.

All participants agree that tempo (*laya – Javanese*) is the most important aspect in all Javanese music sessions presented in this research. However, tempo is a quite rare topic in everyday discussions among those Javanese musicians, since they already taken for granted that tempo is already included in the rhythm. Tempo is always understood as the essence of the rhythm that influences the whole repertoire, whereas rhythm will also effected by the tempo elements. Therefore they will always have a special meaning for tempo. Tempo is said to be the spirit and the soul of the Javanese music.

The focus group discussion analysis shown that there are at least 18 values and meanings that explain how important tempo as a musical element is. If tempo is changed, it will change the whole meaning of the Javanese *gendhing* completely. The focus group discussion process also shown that gamelan music is a valuable part of the Javanese culture, since every unpleasant modification is perceived as a threat towards the culture existence. According to Mulder (2001) and Endraswara (2003), Javanese people are rarely to express their unpleasant feelings. Hence, many spontaneous expressions among Javanese music musicians as a result of the tempo modification in this experiment could also be understood as a significant role of the tempo element itself.

The modification towards the gamelan music rhythm in this experiment was done purposely to examine whether alternated tempo will

ruin the musical structure and establishment. Some musicians even express the effects of tempo modification as "destroying and devastating". It shows that tempo is significantly important, especially for those who are well trained such as the Javanese music musicians in this research. Compared to the musically untrained listeners who are more used to listen through media electronic equipments, the musicians are professionals whose sensitivity from life performances are unquestionable.

There are also the influence of familiarity, knowledge and sociocultural aspects. Therefore, the second research enquiry has been answered, since the musical emotional responses that are stimulated by the timbre element of the gamelan music seems to be more effected by the listener's perception, experience, or social culture and not only by the physics factors.

In the third research enquiry it was questioned whether the musical emotional responses of the Javanese gamelan listeners will be more effected by the tempo compared to the timbre element. The pleasant musical emotional response in this research did not come out as much as those of the unpleasant feelings, since from the four stimuli given in through the sessions, only one remain unmodified. The unpleasant responses are expressed through many Javanese words, most of them are caused by the change of the speed.

The unpleasant feelings are more related to the tempo element modification than that of the timbre. If there is any unpleasant feelings on the timbre modification, it was then more expressed by the musically trained listeners, who reach a higher listening sensitivity to see the difference between bronze and iron timbre. Timbre, sometimes called tone color, is one of the most difficult properties of music to define. Simply stated, it is how we can tell one instrument from another, even if they are playing at the same pitch. Since tempo could not be separated from timbre, further studies are also needed to look into the importance of timbre.

5.3. Discussions

The research findings prominently contribute to the first research purpose, that the influences of the tempo element in Javanese gamelan music towards the musical emotional responses of musically trained listeners (musicians) and musically untrained listeners (non-musicians) are unquestionable.

In this experiment, the musical element that had been given more attention were the tempo and timbre elements. Reaction gained from the intentionally modified tempo supported Sloboda's thoughts that music induces and stimulates emotion (Sloboda, 1991). Music became a intermediary factor to musical emotional responses.

According to Cooke (1959), emotional responses towards music will remain and elaborate eventhough the parts are not heard anymore. It will then contribute to the responses through a more comprehensive way. Moreover, our reactions towards music do not always contain memories and previous imagination, because music might force one feelings which even never felt before.

In this research, Cooke's definition mentioned above is significantly experienced by the musicians, since their sensitivity are highly achieved. Musician activities are filled with exercises, recording, and life performances. Juslin explained that musical expression is often measured in terms of listener agreement: music is expressive of a certain quality to the extent that there is some level of agreement among listeners about the expression, presumably because there is something in the actual music that gives rise to similar listener impressions.

The whole experiment process was also intended to examine the influences of the timbre element in Javanese gamelan music towards the musical emotional responses of musically trained listeners (musicians) and musically untrained listeners (non-musicians), as well as to determine the musical emotional response differences between those two groups.

The difference between the bronze and iron timbre is actually not very distinctive, especially if it is used to play a similar repertoire. Only those musically trained listeners were able to make a distinction between the better timbre (usually using the bronze material), and the lesser (the iron timbre, which socioculturaly applied for a less sacred and less important event).

The following research purpose was to find out the meaning of tempo and timbre as musical elements in Javanese gamelan music that have an effect on musical emotional responses, and moreover determine the role of tempo element as an important aspect in music that potentially stimulate emotional responses. To explore this research purpose, the experiment was intentionally designed to involve the musically trained and untrained listeners, considering that perception of emotions in music is stronger in that listener judgments are only marginally affected by musical training, age, and gender of the listener.

Listener agreement seems to be greater for some emotions (e.g., happiness, sadness) than for others (for example jealousy, disgust), suggesting that music can express some emotions, but not others. The emotions that music can convey reliably are mainly those basic emotions that do not require knowledge of the causal source (Juslin, 1997a; Collier, 2002)

Knowledge gained from experimental studies of emotional expression is complemented by knowledge gained from more 'impressionistic' studies of expression, for example, in sociology (Harris & Sandresky, 1985; Middleton, 1990), philosophy (Davies, 1994) and psychoanalysis (Noy, 1993). Freed from the constraints of operationalization, researchers are able to address more subtle and complex aspects of musical expression, although with more uncertainty regarding the underlying causal relationships.

As of the previous research purpose, this research involved those two experimental groups in order to find out if musical emotional

responses which are stimulated by the timbre element of the Javanese Gamelan instrument is more effected by the listener's perception, experience and sociocultural aspects, than only by Physics factors.

The musically trained listeners, whose profession are gamelan musisicians, are sociologically different from the *pandhemen*, who do not have the same experience, knowledge and also sensitivity towards the gamelan music. Despite different responses that were caused by the psychosocial differences factors, however, there are still similar responses towards the experimental sessions, especially when the modified bronze and iron tempo were played.

On the other hand, since the difference between bronze and iron timbre is very slightly, especially when it plays the similar repertoire, only those musically trained (*pengrawit*) were able to be acquainted with the difference and recognize it straightly. This condition confirmed the presumptions that emotional responses which are stimulated by the timbre element of the Javanese gamelan instrument is more affected by the listener's perception, experience and sociocultural aspects.

To have an empirical tested evidence that musical emotional responses of the Javanese gamelan listeners are significantly more effected by the tempo element compared to the timbre element, the whole experiment has gone through many sessions, showing that a modification on those primary elements will end up with unpleasant musical emotional responses.

6. Conclusions

In this research, music and psychology were discussed in which they share the same topic: music and emotion. Still, the fields of music psychology are relatively young and it is only since recent dates that the relation between emotion and music is researched more thoroughly. Many researchers stated that after a period of neglect, because of the methodological problems, the topic of music and emotion is again at the

forefront of music psychology. Therefore it is important to integrate existing knowledge from a variety of disciplines to be able to further theoretical development, and the findings of this experimental study would contribute with some conclusions:

The study found that effects of unmodified and modified tempo and timbre element towards the emotional musical responses of the musicians differs from those of non-musicians, since musicians are significantly more sensitive towards the tempo and timbre differences.

There are definitely differences provided by effects of modified and unmodified tempo and timbre element stimulation towards the emotional musical responses of the listeners, as well as showing that tempo is the most important element and potentially stimulate emotional responses.

This study also claims that musical emotional responses which are stimulated by the timbre element of the Javanese gamelan instrument is more effected by the listener's perception, experience and sociocultural aspects, than only by physics factors.

This entire experiment adjoin previous studies on Western music that tempo is a more important musical element than timbre. It was shown by the evidence that musical emotional responses of the Javanese Gamelan listeners are significantly more affected by the tempo element compared to the timbre element.

This research brought also a special attention to the dependability of cultural factors that came up through experience, knowledge and sensitivity of the listeners. In this experiment, the cultural factors played a special role to reduce cross-cultural bias possibilities since the music that had been used came from their own cultural background.

It would tell another story if the music used was unfamiliar, although tempo and timbre are universal musical elements. Cultural factors were determined as dominant factors that should always be considered, as it is always related to the perception and musical emotional responses that come forward.

7. Recommendation

This research was developed involving a specific and a limited number of experimental subjects. Therefore the findings of this research could not be generelized. Further studies involving a wider range of profession and musical elements are hopefully done, to contribute to a better empirical evidence on the importance of music psychology.

Related to the methodological aspects, methodological problems are numerous in these sorts of approaches. Emotions are often of short duration and when they are studied in an experimental setting it can be questioned in what way they were influenced by task demands, such as in pressing the button to report those emotional pleasant or unpleasant feelings during the sessions. The experimental setting holds an entirely different atmosphere to the couch at home as well.

The described questionnaires can be validated to a certain extent by testing them in different populations and in different circumstances. Still, it is problematic that people have the tendency to select basic emotions to describe their experiences and they are less capable to describe the nuances. Sometimes, these questionnaires do not help us to gain any insight in how complex emotions can be understood.

Therefore, the quantitative approach in music research should be considered to be careful and to demonstrate the need for a more phenomenological, holistic understanding of musical experiences through qualitative research. However, since this research belongs to the short number of similar topics that has been done in Indonesia, it would be demanding to have a comparative study towards this one, showing its commendable parts as well as its shortcomings. So far, comparations could only be made to those of Western music based research that has been done in the past few years.

Despite of the methodological limitations through quantitative and experimental approach, there are still a necessity in further develoment on experimental designs, as there are more Indonesian culture that could

be taken into considerations. Furthermore there are also two other basic elements that could contribute to the musical emotional responses studies that have not been measured: the pitch and the dynamics musical elements.

The term "musical emotional responses" is not very common in psychology, It should be understood that as regards to anthropology, sociology and philosophy, musical emotional responses belongs tc those aesthetical emotion. This research would contribute to strenghten the evidence on the importance of musical emotional responses as an inseparable part to aesthetical emotions, Moreover, aesthetical emotions dealt with music as one of the noteworthy creation of human beings. The findings of this research would initiate other researches on the same point of view.

Gamelan music is an inseparable cultural source of the Javanese culture. It contains various communal meanings so that the interpretation made towards its repertoires are not based on personal meanings. Consequently, the musical emotional responses that came to pass this experiment were mostly a picture of group emotional responses, either pleasant or unpleasant. The individual differences were then summarized through verbal descriptions, in addition to those facial and emotional reaction portrayed. It comes up with other scientific questions concerning a different approach to the Indonesian culture, either on a personal and individual analytical base, or communal analytical base.

This research contributes to theoretical frameworks in music psychology as a new field of study in Indonesia. Accordingly, there supposed to be more support and involvement obtained from the academic institutions. There is also a need to do more interdisciplinary research since the Indonesian local culture and traditional sources have not always been taken into account. It is now time to empower the local resources in the course of empirical studies in music and psychology, presenting more scientific evidence of its existence. The international

intellectual world should knew more about the Indonesian resources on a scientific base.

Basic research in music that is completed in Indonesia will become a starting point towards the development of Indonesian music therapy, since each knowledge on musical elements from various cultural sources and traditional healing sounds in Indonesia will give a significant contribution. Music induces emotions and this works therapeutically as various cognitions and feelings become activated. In practice, there is still little collaboration between these fields of expertise.

The Indonesian local culture sources are also very potential to contribute to the therapeutical and traditional healing music and there is already a need to enhance the development of music psychology in Indonesia. More experimental research are needed, since tempo and timbre are universal musical parameters. It would then adjoining previous studies in music psychology done all over the world.

In order to develop a more significant role of music psychology, basic research as has been done through this experimental study should be followed by further research. The enhancement of this new field would open the Indonesian researchers' chance to take an active part in empowering the local cultural resources, as well as the global development of empirical music psychology studies.

DAFTAR PUSTAKA

Abeles, H.F. & Chung,J.W.1996. Responses to music. In D.A.Hodges (Ed) *Handbook of music psychology* (2nd ed), pp.285-342. San Antonio,TX:IMR Press.

Aiello, R.1978. Cerebral dominance for the perception of arpeggiated triads. *Journal of Research in Music Education, 26*, 470-78.

Aldridge, D.1996. *Music therapy research and practice in medicine: From out of the silence*, London: Jessica Kingsley.

Anastasi, A. & Urbina,J.R. 1997.*Psychological testing*. NY: McGraw-Hill Book Company.

Arnheim, R.1958. *Film as Art*. London: Faber.

Asmus, E.P. 1985. The development of multidimensional instrument for the measurement of affective responses to music. *Pyschology of Music, 13*, 19-30.

Azwar,S. 1988. *Realibilitas dan validitas*. Yogyakarta: Sigma Alpha.

_____. 1992. *Realibilitas dan validitas*. Yogyakarta: Sigma Alpha.

_____. 1996. *Penyusunan skala sikap*. Yogyakarta: Pustaka Pelajar.

_____. 2003. *Sikap Manusia, Teori dan Pengukurannya* (ed. 2). Yogyakarta: Pustaka Pelajar Offset.

Baker, R. 1990. *The illustrated encyclopedia of music*. NY: Gallery Books.

Balkwil, L.L., & Thompson, W.F. 1999. A cross-culture investigation of the perception of emotion in music : Psychophysical and cultural cues. *Music Perception, 17*,43-64.

Bartel, L.R. 1992. The development of cognitive affective response test. *Psychomusicology. 11*,15-26.

Bartlett, D.L. 1996 Physiological reactions to music and acoustic stimuli. In D.A.Hodges (Ed) *Handbook of music psychology* (2nd ed), pp.343-85. San Antonio,TX: IMR Press.

Barry,N. 1990. The effects of practice strategies, individual differences in cognitive style, and gender upon technical accuray and musicality

of student instrumental performance. *Psychology of Music*, 20, 112-23.

Batson, C.D., Shaw, L.L.,& Oleson, K.C. 1992. Differentiating affect, mood, and emotion: Toward functionally based conceptual distincions. In M.S. Clark (Ed). *Review of personality and social psychology: Emotion*,pp.294-326. Newbury Park,CA:Sage.

Becker, J. 2001. Anthropological perspectives on music and emotion. In.P.N.Juslin & J.A. Sloboda (Eds.), *Music and emotion: Theory and research* (pp.135-60). NY: Oxford University Press.

Behrens,G.A. & Green, S. 1993. The ability to identify emotional content of solo improvisations performed vocally and on three different instruments. *Psychology of Music. 21*,20-33.

Benade,A.H. 1976. *Fundamental of musical acoustic.* NY: Oxford University Press.

Benamou, M. 2001. *Rasa in javanese musical aesthetics.* PhD dissertation: Musicology. Ann Arbor, MI: UMI Company.

Berlyne, D. E.1971. *Aesthetics and psychobiology.* NY: Appleton Century-Crofts.

Bigand, E. (1993) Contributions of music to research on human auditory cognition, in: S. MCADAMS &E. BIGAND (Eds) *Thinking in Sound. The Cognitive Psychology of Human Audition*, pp. 231–277.(Oxford, Clarendon Press).

Bindra, D. 1970. Emotion and behavior theory : Current research in historical perspective. In P.Black (Ed) *Physiological correlates of emotion* , pp. 3-18. NY: Academic Press.

Blacking, J. 1973. *How musical is man* ? Seattle,WA: University of Washington Press.

Blood, A.J., & Zatorre,R.J.2001. Intensely pleasurable responses to music correlate with activity in brain regions implicated reward and emotion. *Proceedings of National Academy of Sciences, 98*, 11818-23.

Boring, G.B. 1950. *A history of experimental psychology.* 2nd ed. NY : Appleton Century-Crofts.

Boski,P., van de Vijver,F.J.R., & Chodynicka,A.M. (Eds.). 2002. *New directions in cross-cultural psychology.* Warsawa: Polish Psychological Association.

Brannen,J. (Ed.). 1992. *Mixing methods: qualitative and quantitative research.* Aldershot: Avebury.

Budd, M. 1985. *Music and the emotions. The philosophical theories.* London: Routledge.

Bunt, L. 1994. *Music Therapy: An Art Beyond Words.* London: Routledge.

Bungin, B. 2003. *Analisis data penelitian kualitatif: pemahaman filosofis dan metodologis ke arah penguasaan model aplikasi.*Jakarta: PT. Raja Grafindo Persada.

Burt, J. L., D. S. Bartolome, D.W. Burdette, & J. R. Comstock .1995. A psychophysiological evaluation of the perceived urgency of auditory warning signals. *Ergonomics 38*,11, 2327.2340.

Cacioppo,J.T. & Gardner,W.L.1999. Emotion. *Annual Review of Psychology, 50,191*-214.

Campbell, I. G.1942. Basal emotional patterns expressible in music. *American Journal of Psychology, 55,* 1-17.

Campbell,R.J., Krysciak,A.M.,&Schellenberg,E.G.2000.Perceiving emotion in melody: Interactive effects of pitch and rhythm. *Music Perception, 18,*155-171.

Carterette, E.C. & R.A. Kendall. 1989. Human perception. In R.J. Dooling and S.H. Hulse, (eds.), *The comparative psychology of audition: Perceiving complex sounds*, 131-72. Hillsdale, NJ: Lawrence Erlbaum Associates.

Cattell, R.B. & J.C. Anderson .1953. The measurement of personality and behavior disorders by the IPAT Music Preference Test. *Journal of Applied Psychology 37*: 446-54.

Clarke, E.F. 1999. Subject position and the specification of invariants in music by Frank Zappa and P.J. Harvey. *Music Analysis, 18*, 347-74.

Crist, M.R. 2000. The effect of tempo and dynamic changes on listener's ability to identify expressive performance, *Contributions to Music Education*, 17,63-77.

Clarke, E.F. 2003. *Music and psychology* in *The cultural study of music : A critical introduction.* London : Routledge.

Clark, DM. & Teasdale.J.D. 1985. Constraint on the effects of mood on memory. *Journal of Personality and Social Psychology*, *48*, 1595-1608.

Clayton, M. 2003. *Comparing Music, Comparing Musicologi.* In. M.Clayton., R.Herbert,R.,& R.Middleton (Eds). *The Cultural Study of Music : a critical introduction.*pp.59-62. NY. Routledge

Clynes, M. 1977. *Sentics: The touch of emotions.* NY: Doubleday.

Collier, G.L. 1996. Affective synesthesia: Extracting emotion space from simple perceptual stimulus. *Motivation and Emotion*, *20*, 1-32.

Cook, N. 1990. *Music, Imagination, and Culture*. Oxford: Clarendon Press.

Cook, N.D. 2001. Understanding harmony: the role of chordal tension. Biological Foundation of Music Perception, (R.J.Zatorre & I. Peretz, eds.) *Annals of the NY Academy of Science*, 930, 382-385.

Cook, T.D. & Campbell, D.T. 1996. *Quasi-experimentation: design and analyses issues.* Boston,USA: Houghton Mifflin College Div.

Cooke, D. 1959. *The language of music.* Oxford: Oxford University Press.

Corbin, J & Strauss, A. 1990. Grounded theory method: Procedures, canons, and evaluative criteria. *Qualitative Sociology*.

Damasio, A.R 1999. *The feeling of what happens: Body and emotion in the making of conciousness.* NY: Harcourt Brace.

Darwin, C. 1871. *The origin of species and the descent of man.* NY: Modern Library.

Davies, J.B. 1978. *The psychology of music.* London: Hutchinson.

Davies, S. 1994. *Musical meaning and expression.* Ithaca, NY: Cornell University Press.

Davis, W.B., & Thaut, M.H. 1989. The influence of preferred relaxing music on measures of state anxiety, relaxation, and physiological measures. *Journal of Music Therapy, 26*, 168-87.

Dawe, K. 2003. *The cultural study of musical instrument*. In M.Clayton., R.Herbert,R.,& R.Middleton (Eds). *The Cultural Study of Music : a critical introduction*.pp. 345-67. NY. Routledge.

Delsignore & Brambilla. 1998. Neuroendocrine responses of healthy volunteers to 'techno-music' : relationships with personality traits and emotional state. *International Journal of Psychophysiology*, *28*, 1, 99-111

De la Motte,H. 1985. *Handbook of music psychology*. Laaber, Germany: Laaber-Verlag Publishing.

De Nora,T.1997. Music and erotic agency-sonic resources and social-sexual action. *Body and Society,* 3, 43-65 University Press.

_____.2000. *Music in everyday life*. Cambridge: Cambridge.

_____.2001. Aesthetic agency and musical practice: New directions on the sociology of music and emotion. In P.Juslin,&J.A. Sloboda (Eds.), *Music and emotion: Theory and research* (pp.161-80). NY: Oxford University Press.

Denski, S. W. 1992. Music, musicians, and communication: The personal voice in a common language. In J. Lull (Ed.), *Popular music and communication* (2nd ed.). (pp. 33-48). London: Sage Publications.

Deutsch,D. 1999. *The psychology of music,* (2nd ed). San Diego,CA: Academic Press.

De Vries, B. 1991. Assesment of the affective response to music with Clynes's sentograph. *Psychology of Music, 19*, 46-64.

Dewantara, H.1936, 1995. *Wawaton kawruh gendhing jawi.* (Terj. Sumarsam). Yogyakarta: Wasita.

Dibben, N. 2001. Pulf, pornography and voyeurism. *Journal of the Royal Musical Association, 126*, 83-106.

_____.2003. *Musical materials, Perception, and Listening*.In M.Clayton, R.Herbert.,& R.Middleton (eds). *The Cultural Study of Music : a critical introduction*. pp.110-123.NY. Routledge.

Djohan.2003. *Psikologi Musik*. Yogyakarta: Buku Baik.

Dowling, W.J.1993. *Procedural and declarative knowledge in music cognition and education*, in: T.J. Tighe & W.J. Dowling (Eds)

Psychology and Music. The Understanding of Melody and Rhythm, (Hillsdale, NJ,Erlbaum).

_____.1994. Melodic contour in hearing and remembering melodies. In R.Aiello & J. A. Sloboda (Eds.), *Musical perceptions* (pp. 173-190). NY:Oxford University Press.

Dowling, W. J. & Harwood, D.L. 1986. *Music cognition*. NY: Academic Press.

Downey, J.E.1897. A musical experiment. *American Journal of Psychology, 9*,63-9.

Eagle, C. T. 1971. *Effects of existing mood and order of presentation of vocal and instrumental music on rated mood responses to that music.* Unpublished doctoral dissertation, University of Kansas, USA.

Ebel, R. 1979. *Essentials of educational measurement*. NY: Prentice-Hall.

Ekman, P. 1992. An argument for basic emotions. *Cognition and emotion, 6*, 169-200.

_____.1994.All emotion are basic. In *The nature of emotions. Fundamental question,* (ed.P.Ekman & R.J.Davidson),pp.15-19. NY: Oxford University Press.

Ekman, P & Friesen, W.V. 1975. *Unmasking the Face.* New Jersey: Prentice Hall, Inc.

Ekman, P & Davidson RJ. 1994. *The nature of emotion: Fundamental questions.* NY.

Endraswara. S. 2003. *Budi pekerti dalam budaya jawa*. Yogyakarta: PT. Hanindita Graha Widya.

Farnsworth, P.R. 1954. A study of the Hevner adjective list. *Journal of Aesthetics and Arts Criticism, 13*,97-103.

Fehr, B.,& Russel,J.A. 1984. Concept of emotion view from prototype perspective. *Journal of Experimental Psychology: General, 113*,464-486.

Ferdinandus, P. 1999. Alat-alat musik Jawa Kuna (Abad IX-XV masehi). Sebuah kajian mengenai bentuk dan fungsi ansambel. *Disertasi*. Yogyakarta: Universitas Gadjah Mada.

Finegan, J. E. 1989. In defense of the velten mood induction procedure. *Canadian Journal of Behavioral Science 27*. Online Journal.

Fischer. 1981. Biological time. In J.T.Fraser.(ed.) *The voices of time*. Amherst: The University of Massachussets Press, 357-382.

Flick, U. 2002. Qualitative research: state of the arts. *Social Science Information, 41* (1): 5-24.

France´S,R. 1988. *The Perception of music* (trans. W.J. Dowling) (Hillsdale, NJ, Erlbaum).

Frijda, N.H. 1986. *The emotions*. NY: Cambridge University Press.

_____. 1988. Aesthetic emotions and reality. *American Psychologist, 44*,1546-7.

Frijda, N.H., Mesquita, B., Sonnemans,J., & Van Goozen,S. 1992. The duration of affective phenomena or: Emotions, sentiments and passions. In *International review of studies on emotion,* (Vol.1) (ed.K.T.Strongman), pp.187-225.Chichester, UK:Wiley.

Frith, S. 2003. *Music and Everyday Life*. In. M.Clayton., R.Herbert,R.,& R.Middleton (Eds). *The Cultural Study of Music : a critical introduction*.pp.59-62. NY. Routledge.

Gabrielsson, A. 1986. *Rhythm in psychological, linguistic and musical process*, (ed. J.R. Evans&M. Clynes),pp.131-67. Springfield, IL:Charles C. Thomas.

_____.1988. Timing in music performance and its relation to music experience. In J.A.Sloboda (ed). *Generative process in music : The psychology of performance, improvisation, and composition*, pp.27-51.Oxford,UK: Clarendon Press.

_____.1989.Intense emotional experiences of music. In *Proceeding of the First International Conference on Music Perception and Cognition*, pp.371-6. Kyoto, Japan: Japanese Society of Music Perception and Cognition.

_____.1991.Experiencing Music.*Canadian Journal of Research in Music Education,33*,21-6.

_____.1993. Emotion and music. *European Society for the Cognitive Sciences of Music Newsletter, 4*, 4-9.

_____.1999. The performance of music. In D.Deutsch (ed) *The psychology of music*, (2nd edn), pp.501-602. San Diego,CA: Academic Press.

_____.2000. Musicality, music performance, and music experience. In *Multidisciplinary perspectives on musicality*, (ed.D.Coffman, K,Gfeller,D.J. Nelson, & C.Rodriguez). Iowa City, IA : University of Iowa Press.

_____.2001. Emotion perceived and emotion felt: Same or different? *Musicae Scientiae. Spec Issue, 2001-2002*, 123-147.

Gabrielsson, A. & Juslin, P.N. 1996. Emotional expression in music performance: Between the performers intention and the listeners experience. *Psychology of Music, 24,* 68-91.

_____. 1999.The performance of music. In D.Deutsch (ed) *The psychology of music*, (2nd edn), pp.501-602. San Diego,CA: Academic Press.

_____. 2003. Emotional expression in music. In R.J. Davidson,H.H. Goldsmith, & K.R. Scherer (eds). *Handbook of affective sciences*. NY: Oxford University Press.

Gabrielsson, A. & Lindstrom,S. 1999. Can strong experiences of music have theraupetic implications? In R.Steinberg (ed) *Music and the mind machine. The psychophysiology and psychopathology of the sense of music,* pp.195-202. NY: Springer.

_____. 2000. Strong experiences of and with music. In. P.N. Juslin & J.A. Sloboda (Eds.), *Music and Emotion:Theory and research* (pp.223-248).NY:Oxford University Press.

_____. 2001. The influence of musical structure on emotional expression. In D. Greer (Ed.), *Musicology and Sister Disciplines: Past, Present and Future*. Oxford: Oxford University Press.

Gabrielsson, A. & Laukka,P. 2000. Improving emotional communication in music performance through cognitive feedback. *Musicae Scientiae,4*, 151-83.

Gagnon,L. & Peretz.I. 2001. Mode and tempo relative contributions to 'happy-sad' judgements in equitone melodies.*Cognition and Emotion.5,* 109-128.

Gautam, M.R. 1980. *The musical heritage of India.* New Delhi: Abhirav Publication.

Gaver, W.W. 1993. What in the world do we hear? An ecological approach to auditory event perception. *Ecological Psychology* ,*5*,1: 1-29.

Gaver, W.W.& Mandler,G. 1987. Play it again, Sam: On liking music. *Cognition and Emotion, 1,* 259-82.

Geertz. C. 1976. Reprint. *The religion of Java*. Chicago: University of Chicago Press. Original edition, Glencoe, Illinois: Free Press.

Gottselig, J.M. 2001. Human neuroanatomical systems for perceiving emotion in music. *Dissertation Abstracts International, 61* (9-B), 4591.

Gregory, A.H. & Varney, N. 1996. Cross-cultural comparisons in the affective response to music. *Psychology of Music*, 24, 47-52.

Guilford, J.P and Fruchter, B. 1978. *Fundamental Statistics in Psychology and Education* (6th.ed). Singapore: McGraw-Hill Book Company

Gundlach,R.H. 1953.. Factor determining the characterization of musical phrases. *American Journal of Psychology*, *47*, 624-44.

Hadi, S. 1983. *Metodologi Penelitian* . Yogyakarta: Penerbit Andi Offset

_____.2005. Kapita selekta metodologi penelitian ilmiah. *Hand out.* Fakultas Psikologi Universitas Gadjah Mada. Yogyakarta.

Hajda, J. M., R. A. Kendall, E. C. Carterette, and M. L. Harshberger 1997. Methodological issues in timbre research. In I. Deliege and J. A. Sloboda (Eds.), *Perception and Cognition of Music*. pp. 367-89. Hove,East Sussex: Psychology Press.

Halpern, D., R. Blake, and J. Hillenbrand. 1988. Psychoacoustics of a chilling sound. *Perceptionand Psychophysics 39,* 77-80.

Hargreaves, D.J. 1986. *The Developmental psychology of music.* Cambridge, MA. Cambridge University Press.

Hargreaves, D.J. & North,A. 1999. The functions of music in everyday life: Redefining the social in music psychology. *Psychology of Music*,*27*, 71-83.

Harrer, G. & Harrer, H. 1977. Music, emotion and autonomic function. In M. Critchley and R.A. Henson (Eds.). *Music and the Brain: Studies in*

the neurology of Music (pp. 202 -216). Londen: William Heinemann Medical Books Limited.

Harris, C. T., & Sandresky, C. 1985. Love and death in classical music: Methodological problems in analyzing human meaning in music. *Symbolic Interaction, 8,* 291-310.

Hartono, K.P. 1995. Kepekaan mengartikan dan merespon balik emosi dasar manusia dalam industri jasa perhotelan. *Skripsi.* Tidak diterbitkan. Yogyakarta: Fakultas Psikologi Universitas Gadjah Mada.

Haryono, T.2004. *Seni pertunjukan pada masa Jawa Kuno.* Yogyakarta: Penerbit Pustaka.

Hevner, K. 1935. Expression in music : A discussion of experimental studies and theories. *Psychological Review, 42,* 186-204.

_____.1936. Experimental studies of the elements of expression in music. *American Journal of Psychology 48*, 248-268.

_____.1937. The affective value of pitch and tempo in music. *American Journal of Psychology, 49,* 621-630.

Highlend,P.S. & Finley,H.C. 1996. Doing qualitative analysis. In Leong,F.T. & Austin, J.T.(Eds). *The psychology research handbook: a guide for graduate student and research assistants.* Thousand Oaks,CA: Sage Publications, Inc.

Hilgard, E.1962. *Introduction to psychology*. New Jersey:Harcourt Brace J.

Hodges, D.A. (Ed). 1996. *Handbook of music psychology* (2edn).San Antonio. IMR Press.

Holyrode, P. 1972. *The music of India*. Foreword by Ravi Sahnkar. NY: Praeger.

Hughes,F.F.,& Freeland, J. 1991. Classification and communication in javanese palace performance. *Visual Anthropology*, 4,345-66.

Imberty, M. 1981. Tonal articulation and perceptual structuring of musical time in children, in: *Basic Musical Functions and Musical Ability*, Publication No. 32, 2nd Edn, pp. 107–130 (Stockholm. The Royal Swedish Academy of Music).

_____. 1997. Can one seriously speak narrativity in music? In A.Gabrielsson (ed). *Proceedings of the Third Triennial ESCOM*

Conference, 1997, pp.13-22. Uppsala, Sweden: Department of Psychology, Uppsala University.

Irwanto. 1998. *Focus Group Discussion: Sebuah pengantar praktis*. Jakarta: Pusat Pembangunan Kajian Masyarakat, Universitas Katolik Indonesia Atma Jaya. Jakarta.

Iwanaga, M. & Tsukamoto.M 1997. Effects of excitative and sedative music on subjective and physiological relaxation. *Perception and Motor Skills* 85, 1, 287-296.

Jansma, M, & Vries, Bart de.1995. Muziek en emotie. In: Evers, Jansma, Mak, De Vries (Eds). *Muziekpsychologie.* (pp. 204-222). Assen: Van Gorcum.

James. W. 1950.*The principles of psychology,* (Vol.2). NY: Dover Publications (Originally published in 1890)

Johnson-Laird, P.N. & Oatley,K.1992. The language of emotions: An analysis of semantic field. *Cognition and Emotion,3*, 81-123.

Juslin, P. N. 1997. "Emotional communication in music performance: A functionalist perspective and some data." *Music Perception 14*,4, 383-418.

_____. 1997a. Emotional communication in music performance: A functionalist perspective and some data. *Music Perception, 14,* 383-418.

_____.1997b. Perceived emotional expression in synthesized performances of a short melody: Capturing the listener's judgement policy. *Musicae Scientiae,1,*225-56.

_____. 1997c.Can result from studies of perceived expression in musical performances be generalized across response formats? *Psychomusicology,16*,77-101.

_____. 2000. Cue utilization in communication of emotion in music performance: Relating performance to perception. *Journal of Experimental Psychology: Human perception and Performance, 26*, 1797-813.

_____. 2001 b. A Brunswikian approach to emotional communication in music performance. In K.R. Hammond & T.R. Steward (Eds). *The essential Brunswick : Beginnings, explications, application,* pp.426-430. NY: Oxford University Press.

_____. 2002. Communicating emotion in music performance: A review and theoritical framework. In P.N. Juslin & J.A. Sloboda (Eds.), *Music and emotion : Theory and research*. Oxford: Oxford University Press.

_____. 2003. Vocal expression and musical expression: Paralels and contrast. In A. Kappas (Ed). *Proceedings of the Eleventh Meeting of International Society for Research on Emotion*. Quebec, Canada: ISRE Publications.

Juslin, P.N. & Madison, G. 1999. The role of timing patterns in recognition of emotional expression fro musical performance. *Music Perception, 17*,197-221.

Juslin, P.N. & Sloboda, J.A. 2001. *Music and emotion: theory and research*.NY. Oxford University Press.

Juslin, P.N. & Laukka, P. 2003. Improving emotional communication in music performance through cognitive feedback. *Musicae Scientiae, 4*,151-83.

Juslin, P. N., & Lindström, E. 2003. *Musical expression of emotions: Modeling composed and performed features*. Manuscript submitted for publication.

Juslin, P.N. & Laukka, P. 2004. *Expression, perception, and induction of emotion in musical communication: a questionnaire study of everyday listening to music*. Manuscript in preparation.

Kamenetsky, S.B., Hill, D.S., & Trehub,S.E. 1997. Effect of tempo and dynamics on the perception of emotion in music. *Psychology of Music, 25,* 149-60.

Kaminska, Z. & Woolf, J. 2000. Melodic line and emotion: Cooke's theroy revisited. *Psychology of Music, 28*, 133-153.

Kaplan, R.M; Sallis, J.F & Patterson, T.L. 1993. *Health and human behavior*. NY, USA: McGraw-Hill, Inc.

Keats, L. 1995.Doug: The rhythm in his world. *Canadian Journal of Music Therapy. 3,*1, 53-69.

Kendall, R.A. & E.C. Cartertette. 1990. The communication of musical expression. *Music Perception, 82*, 129-64.

Kerlinger,F.N. & Lee.B.H. 2000. *Foundations of behavioral research* 4th edn.NY. Harcourt College Publisher.

Kirouac. G. 1992. Emotions and the limbic system concept. In D.Golemann (Ed), *L'intelligene emotionnelle*, (pp.29-47). Paris: Laffont.

Kivy, P. 1989. *Sound sentiment: An essay on the musical emotion.* Philadelphia, PA: Temple University Press.

Kedaulatan Rakyat. 2004. Gamelan dari jawa mendunia. 11 Oktober, halaman 12.

Kenealy, P. 1988.Validation of a music mood induction procedure: Some preliminary findings. *Cognition and Emotion*,2.41-8.

Kerlinger,F.A. & Lee,B. H.2000. *Foundations of behavioral research* (4th edn). NY: Harcourt College Publisher

Koentjaraningrat. 1994. *Kebudayaan Jawa.* Jakarta : Penerbit Balai Pustaka.

Konechi, V.J. 1979. Determinants of aesthetic preference and effects of exposure to aesthetic stimuli: Social, emotional, and cognitive factors. In *Progress in experimental personality research*, (Vol.9) (ed.B.A. Mahler),pp.149-97. Orlando,FL:Academic Press.

_____.1982.Social interaction and musical preference. In D. Deutsch (ed). *The psychology of music*, pp.497-516. San Diego,CA: Academic Press.

Krumhansl, C.L. 1991.*Cognitive foundation of musical pitch*. NY: Oxford University Press.

_____. 1997. "Effects of perceptual organization and musical form on melodic expectancies." In *Music, Gestalt, and Computing: Studies in Systematic and Cognitive Musicology*, M. Leman, ed. Berlin: Springer. *1317*: 294-320.

_____. 1997b. An exploratory study of musical emotions and psychophysiology. *Canadian Journal of Experimental Psychology 51,* 336.352

Krumhansl, C.L & Lundqvist, L.g., & Hilmersson, P.2000. *Facial electromygraphy, autonomic activity, and emotional experience to*

happy and sad music. Paper presented at the 27th International Congress of Psychology, Stockholm, Sweden, 23-28 July,2000.

Langer, S. 1956. *Philosophy in a new key* (2nd ed) Cambridge,MS : Harvard University Press.

Lazarus, R.S. 1991. Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist.5,* 201-14.

Le Doux, J. 1996.*The emotional brain.* NY: Simon&Schuster.

Lerdahl, F. & Jackendoff, R. 1983. *A generative theory of tonal grammar,* Cambridge, MA: MIT Press.

Levitin, D. J. and P. R. Cook .1996. "Memory for musical tempo: Additional evidence that auditory memory is absolute." *Perception & Psychophysics 58*,6: 927-935.

Lewis, M. & Haviland-Jones,J.M. 2000.*Handbook of emotion* (2nd edn). NY: The Guildford Press.

Lindström, E. 2003. 'Expressivity comes from within your soul': A questionnaire study of music students' perspectives on expressivity. *Research Studies in Music Education, 20,* 23-47.

Lundqvist,L.G., Carlsson,F., & Himersson,P.2000. Facial electromyograph, autonomic activity, and emotional experience to happy and sad music. *Paper presented at the 27th International Congress of Pyschology,* Stockholm, Sweden, July 2000.

Lund, C.1981.The Archaeomusicology of Scandinavia. *World Archaeology 12* ,13, 246-265.

Lull, J. 1985. On the communicative properties of music. *Communication Research, 12,* 363-372.

_____.1992. *Popular music and communication : An introduction.* London: Sage.

Magnis-Suseno, F. 1999. *Etika Jawa. Sebuah analisa falsafi tentang kebijaksanaan hHidup Jawa.* Jakarta: PT. Gramedia Pustaka Utama.

Mandler, G.1984. *Mind and body: Psychology of emotions and stress.* NY: Norton.

Markam, S. S. 1994. *Pengalaman Emosi dan Kesehatan Mental.* Pidato Pengukuhan. Diucapkan pada Upacara Penerimaan Jabatan sebagai Guru Besar Tetap Psikologi pada Fakultas Psikologi Universitas Indonesia di Jakarta tanggal 15 Juni 1994.

Martopangrawit, R.L. 1975. *Tjatatan-tjatatan pengetahuan karawi*tan. Surakarta: Pusat Kesenian Djawa Tengah dan Dewan Mahasiswa ASKI.

Maslow, A. 1954. *Motivation and personality*. NY: Harper.

_____. 1976. *Toward a psychology of being(2nd edn).* NY: Van Nostrand Reinhold.

Merriam, A.P.1964. *The anthropology of music*. Evanston,IL: Northwestern University Press.

Meyer, L. B.1956. *Emotion and meaning in music*. Chicago: University of Chicago Press.

_____.1973. *Explaining music: essays and explorations*.Chicago: University of Chicago Press.

_____.1989. *Style and music.* Philadelphia, PA: University of Pennsylvania Press.

_____.1994. Music, the arts, and ideas. Chicago: University of Chicago Press.

_____.2000. *The spheres of music*. Chicago: University of Chicago Press.

Middleton, R. 1990. *Studying popular music.* Milton Keynes,UK: University Press.

Monahan, C.B., R.A. Kendall, & E.C. Carterette.1987. The effect of melodic and temporal contour on recognition memory for pitch change. *Perception and Psychophysics, 416:* 576-600.

Mulder,N. 2001. *Mistisisme Jawa Ideologi Indonesia*. Yogyakarta: Lkis.

Narmour, E. 1991. The top-down and bottom-up systems of musical implication :Building on Meyer's theory of emotional syntax. *Music Perception.9*, 1-26.

Neale, J.M. & Liebert,R.M.1986. *Science and behavior.* Englewood Cliffs,NJ: Prenctice Hall.

Nielzen, S. and O. Olsson.1993. The in_uence of duration on verbal-attribute ratings of complex protomusical sounds. *Music Perception 11*,1, 73-86.

North, A. C. and D. J. Hargreaves .2000. Music preference in everyday life: arousal- ortypicality-based goals? *Paper presented at .The effects of music., a conference of the Society for Research in Psychology of Music and Music Education*, 8-9 April 2000.

Noy, P. 1993. How music conveys emotion. In S. Feder, R. L. Karmel, and G. H. Pollock,(Eds), *Psychoanalytic Explorations in Music.* Madison, Connecticut: International Universities Press.

Oatley,K, & Jenkins,J.M.1992. *Understanding emotion.* Oxford, UK: Blackwell.

Ogden. J. 1996. *Health Psychology, A Textbook.* Philadelphia, USA: Open University Press.

Ortony,A & Turner,T,J.1990. What's basic about basic emotion? *Psychological Review, 97*,3, 315-531.

Osgood, C.E., Suci,G.J., & Tannenbaum,P.H. 1957. *The measurement of meaning.* Urbana,IL: University of Illinois Press.

Palmer, C. 1997. Music Performance. *Annual Review of Psychology, 48,* 115-38.

Panksepp, J. 1995.The emotional sources of 'chills' induced by music. *Music Perception*, *13*, 171-208.

_____.1997. The affective cerebral consequence of music: Happy vs sad effects on the EEG and clinical implications. *International Journal of Arts Medicine. 5*,1, 18-27.

Panksepp,J. & Bernatsky,G. 2002. Emotional sounds and the brain: the neuro-affective foundations of musical appreciation.*Behavioural Processes,60*,133-55.

Panzarella,R. 1980. The phenomenology of aesthetic peak experiences. *Journal of Humanistic Psychology, 20*,69-85.

Papalia, D & Olds. 1998. *Human development.* (7th.ed). Boston, USA : McGraw Hill.

Patterson. M.I. 1990. Function of nonverbal behavior in social interaction. In Giles.H. & Robinson. W.P. (Eds). *Handbook of language and social psychology*. NY: John Wiley and Sons.

Patton, M.Q. 1990. *Qualitative evaluation and research methods* (2nd ed.) London: Sage.

Peretz, I. 2001. Listen to the brain: a biological perspective on music and emotion In: : Sloboda, J.A & Juslin, P.N. (Eds.) *Music and Emotion: theory and research.* pp. 105-135. NY: Oxford University Press.

Peretz, I & Gagnon,L. 2000. Laterality effects in processing tonal *and atonal melodies with affective and non affetive task instruction. Brain and cognition*, *43*, 206-10.

Persson, R.S. 2000. Survival of the fittest or the most talented? Deconstructing the myth of the musical maestro. *Journal of Secondary Gifted Education*, *xii*, 25-38.

Pierce, J. R. 1983. *The science of musical sound.* NY: W.H. Freeman.

Pinkney, L. 1999. A comparison of snoezelen environment and music relaxation group on the mood and behavior of patients with senile dementia. *British Journal of Occupational Therapy,*60 (5).209-212.

Plomp, R. 1964. *Aspects of tone sensation.* NY: Academic Press.

Prawitasari, J.E. 1993. Kepekaan terhadap komunikasi non-verbal di antara masyarakat yang berbeda budaya. *Laporan Penelitian.* Fakultas Psikologi. Universitas Gadjah Mada.

_____. 1998. Kecerdasan emosi. *Buletin Psikologi* No.1, 21-31.

_____. 2000. *Emosi dan Ekspresinya dalam Masyarakat.* Dalam Supratiknya; Faturochman & Haryanto, S. *Tantangan Psikologi Menghadapi Milenium Baru.* Yogyakarta : Yayasan Pembina Fakultas Psikologi UGM Yogyakarta.

_____. 2000. *Psikologi Klinis : Dari Terapan Mikro ke Makro.* Makalah. Disampaikan pada Kongres ke VIII HIMPSI di Bandung, 20 - 22 Oktober 2000.

Prawitasari, J.E,. Martani, W. & Adiyanti, M.G. 1995. Konsep emosi orang

Indonesia: Pengungkapan dan pengertian emosi melalui komunikasi nonverbal di masyarakat yang berbeda latar budaya (Banjarmasin, Balikpapan, dan Yogyakarta). *Laporan Penelitian*. Yogyakarta: Fakultas Psikologi Universitas Gadjah Mada.

Prawitasari, J.E,. Martani, W. & Adiyanti, M.G. 1996. Konsep emosi orang Indonesia: Pengungkapan dan pengertian emosi melalui komunikasi nonverbal di masyarakat yang berbeda latar budaya (Sumatera). *Laporan Penelitian*. Yogyakarta: Fakultas Psikologi Universitas Gadjah Mada.

Prawitasari, J.E,. Martani, W. & Adiyanti, M.G. 1997. Konsep emosi orang Indonesia: Pengungkapan dan pengertian emosi melalui komunikasi nonverbal di masyarakat yang berbeda latar budaya (Jawa Barat, Jawa Tengah, Jawa Timur, Bali, Lombok). *Laporan Penelitian*. Yogyakarta: Fakultas Psikologi Universitas Gadjah Mada.

Resnicow, J. E., Salovey, P., & Repp, B. H. 2003. *Recognizing emotion in music performance is an aspect of emotional intelligence.* Manuscript submitted for publication.

Ries, H.A. 1969. GSR and breathing amplitude related to emotional reactions to music. *Psychonomic Science, 14* (2), 62-64.

Rigg, M.G. 1964. The mood effects of music : A comparison of data from four investigators. *Journal of Psychology*, *58*, 427-38.

Risset, J.C & Wessel,D.L. 1982. Exploration of timbre by analysis and synthesis. In D.Deutsch (Ed), *The psychology of music.*(pp.26-58).NY: Academic Press.

Rowell, L. 1992. Music *and musical thought in Early India*. Chicago: The University of Chicago Press.

Russell,J.A. 1980. A circumplex model of afect. *Journal of Personality and Social Psychology*, *39*,1161-78.

Russell, J.A & Fernandez-Dols, J.M. 1997. *The Psychology of facial expression.* NY, USA: Cambridge University Press.

Sarantakos,S. 1993. *Social research*. Melbourne: MacMillan Education Australia.

Sastrodarsono,S. 1966. *Sinau nabuh gamelan.*Surakarta. Kemudawati.

Scherer, K.R. & Oshinsky, J.S. 1997. Cue utilization in emotion attribution from auditory stimuli. *Motivation and Emotion*, *1*,331-46.

Scherer, K.R. & Zentner,M.R. 2001. Emotional effects of music: production rules. In. P.N. Juslin & J.A. Sloboda (Eds.), *Music and Emotion:Theory and research* (pp.371-377*)*.NY:Oxford University Press.

Schmidt, L. & Trainor,L. 2002. *Frontal brain electrical activity (EEG) distinguishes valence and intensity of musical emotions*. Manuscript submitted for publication.

Schubert, E. 1996. Continuous response to music using a two dimensional emotion space. *In.*B. Pennycook & E. Costa-Giomi (Eds). *Proceedings of the Fourth International Conference of Music Perception and Cognition*, pp.263-8. Montreal,Canada: McGill University.

Schulkind, M. D., L. K. Hennis, & D. C. Rubin. 1999. Music, emotion, and autobiographical memory: They're playing your song. *Memory and Cognition* 27(6), 948.955.

Serafine, M.L. 1988. *Music as cognition: the development of thought in sound*. NY.Academic Press.

Shannon, C. E. & Weaver, W. 1949. *The mathematical theory of communication.* Urbana, IL: University of Illinois Press.

Shaver, P., Schwartz,J., Kirson, D., & O'Connor, C.1987. Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology, 52*,1061-1086.

Shelden, D.A. 1994. Effects of tempo, musical experience, and listening modes on tempo modulation perception, *Journal of Research in Music Education*, *42,*3,190–202.

Shweder. R.A. 1992. "You're not sick, you're just in love" : Emotion as an interpretive system. *Conference on Emotion and Culture.* June 10-14. Eugene, OR,: University of Oregon.

Sloboda, J.A. 1985. *L'esprit musicien. La psychologie cognitive de la musique.* Beligique: Mardaga.

_____. 1991. Music structure and emotional response: some empirical findings. *Psychology of Music,* 19, 110-120.

_____. 1992. Empirical studies of musical affect. In M. Riess-Jones & S. Hollerman (Eds.). *Cognitive bases of musical communication* (pp. 33-45). Washington: American Psychological Association.

_____.1994. Music performance: Expression and the development of excellence. In R. Aiello, & J. A. Sloboda (Eds.), *Musical perceptions* (pp. 152-169). NY: Oxford University Press.

_____. 1996. *Emotional response to music: a review.* Presented at the Nordic Acoustical Meeting, 12-14th June, Helsinki.

_____.1996.Emotional responses to music : A review. In K.Riederer & T. Lahti (Eds). *Proceeding of the Nordic Acoustical Meeting,* pp.385-92. Helsinki: The Acoustical Society of Finland.

_____.1999. Everyday uses of music listening: A preliminary study. In Suk Won Yi (Ed) *Music, mind and science*. Seoul: Western Music Institute.

_____.2000. Musical performance and emotion: Issues and develpoments. In S.W.Yi (Ed). *Music, Mind, and Science*, pp.220-38. Seoul, Korea: Western Music Research Institute.

_____.2001. Everyday uses of music listening: a preliminary study. In S. W. Yi (Ed.), *Music, Mind and Science*. Seoul: Western Music Research Institute.

Sloboda, J.A. & O'Neill,S.A. 2001. Emotions in everyday listening to music. In P.N. Juslin & J.A. Sloboda (Eds.), *Music and emotion: theory and research* (pp.415-30). NY: Oxford University Press.

Sloboda, J.A. & Juslin,P.N. 2001. Psychological perspectives on music and emotion. In P.N. Juslin & J.A. Sloboda (Eds.), *Music and emotion: theory and research* (pp.415-30). NY: Oxford University Press.

Smeijsters, H, Wijzenbeek, G, and Nieuwenhuijzen, Niek van.1995. The Effect of Musical Excerpts on the Evocation of Values for Depressed Patients. *Journal of Music Therapy, XXXII (3)*, 167-188.

Smith, L.D. & Williams, R.N. 1999. Children's artistic responses to musical intervals. *American Journal of Psychology, 112*, 383-410.

Steptoe,A.1998. Psychophysiological bases of disease. In D.W.Johnston & M. Johnston (Eds) *Comprehensive clinical psychology. Volume 8: Health psychology,* pp.39-78. NY: Elsevier Science.

Strehle, H. 1960, *Mienen, Gesten und Gebärden*. Munchen: Ernst Reinhart Verlag.

Strauss,A. & Corbin. J. 1990. *Basics of qualitative research: grounded theory and procedures and techniques*. NY. Sage Publications.

Sudderth, J. 1995. CoreCD (*version 1.4*) (Computer Software). Core Development Group,Inc.

Sukaji,S. 1997. *Pengantar semantic differential.* Fakultas Psikologi Universitas Indonesia. Depok.

Supanggah, R. 1985. Introduction aux styles d'interpretation dans la musique javanaise.In Benamou,M. Rasa in javanese musical aesthetics. *Dissertation.* University of Michigan.

Sumarsam. 2002. *Hayatan gamelan: Kedalaman lagu, teori dan perspektif*. Surakarta: STSI Press Surakarta.

_____.2003. *Gamelan: interaksi budaya dan perkembangan musikal di Jawa*. Yogyakarta. Pustaka Pelajar.

Sunardi,St. 2005. *Ayo nembang : kumpulan tembang-tembang untuk pendidikan* (in press).

Supratiknya, A. 1995. *Mengenal perilaku abnormal.* Yogyakarta: Penerbit Kanisius.

Suryabrata, S. 2000. *Pendekatan kuantitatif dan kualitatif*: Makalah pidato pelepasan guru besar fakultas Psikologi Universitas Gadjah Mada (tidak diterbitkan). Yogyakarta.

Terwogt, M.M. & van Grinsven, Flora.1991. Musical Expression of Moodstates. *Psychology of Music, 19,* 99-109.

Thayer, J.F.& R.W. Levenson. 1983. Efects of music on psychophysiological responses to stressful film. *Psychomusicology 3*, 44-52.

Thompson, W.E. & Robitaille, B. 1992. Can composerts express emotion through music? *Empirical Studies of the Arts, 10*,79-89.

Tomlinson, G. 2003. *Musicology, Anthropology, History.* In. M.Clayton., R.Herbert,R.,& R.Middleton (Eds). *The Cultural Study of Music : a critical introduction*.pp.59-62. NY. Routledge.

Torres, C. A. & Torres, L. R. (undated). *Notes on music.* St. Maries, ID: LMN Publishing International.

Vink, A. 2001. Music and emotion, living part together: a relationship between music psychology and music therapy. *Nordic Journal of Music Therapy*, *10*,2, 144-158.

Von Bismarck,G. 1979. Timbre of steady sounds : A factorial investigation of its verbal attributes. *Acustica*, *30*, 146-159.

Walker, R. 1996. Open peer commentary: Can we understand the music of another culture ?. *Psychology of Music, 24*, 103-130.

Waterman, M. 1996. Emotional responses to music. Implicit and explicit effects in listeners and performers. *Psychology of Music, 24*,53-67.

Wedin, L. 1972. Evaluation of three-demensional model of emotional expression in music. *Report from the Psychological Laboratories, University of Stockholm*, *349*,20.

Weinberger, N.M. 1998. Understanding music's emotional power. (on line) *MuSICA Research Notes, Volume V, Issue 2 Spring 1998.* Available :http://www.musica.uci.edu/mm/V512S98.html#understanding. Accessed November 2001).

Wheeler, B. (ed).1995. *Music therapy research: Quantitative and qualitative perpectives*. Phoenixville,PA: Barcelona.

Weiss,S. 2003. Kothong nanging kebhak. Empty yet full : Some thoughts on embodiment and aesthetic in javanese performance. *Asian Music*, *34*/2, 21-49.

Whissell, C.M., Fournier, M., Pelland, R.,Weir.,& Makarec, K. 1986. A dictionary of affect in language: IV. Reliability, validity, and application. *Perceptual and Motor Skills*, *62*, 875-88.

Widjaja, H.1994. *Ilmu pernyataan*. Diktat Kuliah. Bandung: UPT Fakultas Psikologi Universitas Padjadjaran

Wigram, T. 2003. *Music, vibration and health*. New Jersey: Jeffrey Books.

Wigram, T., Pedersen,I,N.,& Bonde, O,L. 2002. *A comprehensive guide to Music Therapy : theory, clinical practice, research and training.* London: Jessica Kingsley Publishers.

Witvliet, C.V & Vrana,S,R. 1996. The emotional impact of instrumental music on affec ratings, facial EMG, autonomic response, and the startle reflex: Effects of valence and arousal. *Psychophysiology Supplement, 91*, 112-25.

Wolman, B. 1973. *Dictionary of behavioral sciences.* NY: Van Nostrand Reinhold Company.

Wolpert, R. 1990. Recognition of melody, harmonic accompaniment, and instrumentation: musicians vs. nonmusicians. *Music Perception, 8*, 95-106.

Woodworth, R. & Schlossberg, N. 1961. *Experimental Psychology.* London: Methnen & Co. Ltd.

Wundt, W. 1897. *Outlines of psychology* (trans,C.H.Judd). Leipzig: Englemann.

Zajonc, R.B. 1994. Emotional expression and temperature modulation. In S.H.M. Van Goozen, N.E. Van de Poll, & J.A. Sergeant *(Eds). Emotion: essays on emotion theory,* pp.3-27. Hillsdale, NJ: Earlbaum.

Zenatti, A.1993. Children's musical cognition and taste, in: T.J. Tighe & W.J. Dowling (Eds) *Psychology and Music. The Understanding of Melody and Rhythm*, pp. 177–196.Hillsdale, NJ,Erlbaum.

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JENIS KELAMIN	: L / P

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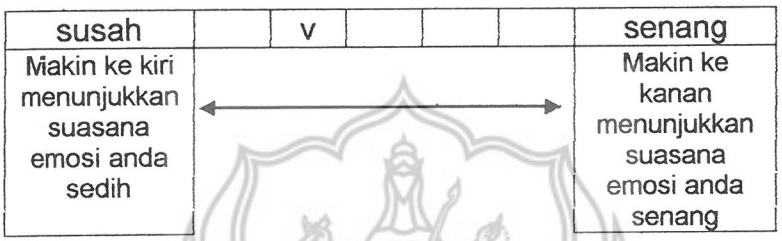
PETUNJUK PENGISIAN

Pada halaman berikut ini terdapat sejumlah kata sifat yang berlawanan. Antara kedua pasangan kata tersebut terdapat 5 kolom. Tugas anda adalah memberi tanda (v) pada salah satu dari 5 "kolom" yang terletak di antara setiap pasangan kata sifat. Tanda ke kiri berarti Anda cenderung memilih kata sifat di sebelah kiri dan sebaliknya. Kalau terpaksa tidak ada pilihan (netral) beri tanda (v) pada kolom tengah. Sebaiknya Anda hindari pilihan netral ini. Tanda (v) ini hendaknya menunjukkan kesan pertama anda mengenai gending yang barusan diperdengarkan.

Contoh: ke arah kiri



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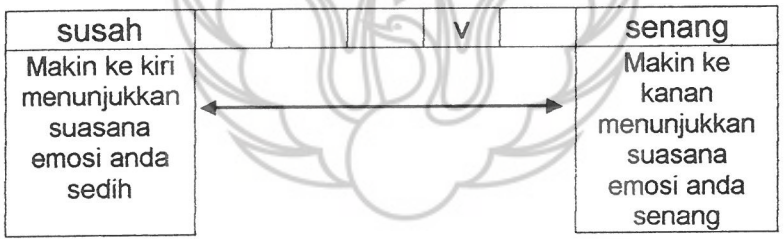
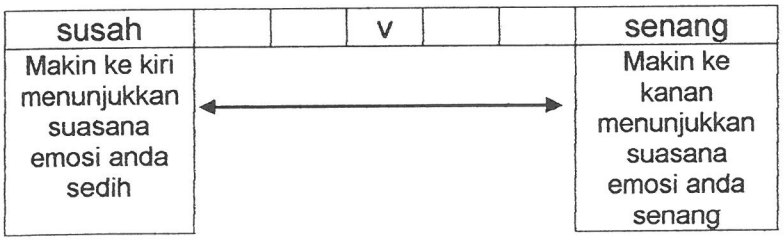


Contoh : netral



Evaluasi :

kacau		tepat
sumpek		lega
mangkel		senang
dongkol		gembira
gregetan		tenang
kele-kele		seseg
lamban		bregas
ampang		antep
cemplang		kempel
berat		enteng
ragu		mantap
tegang		santai
tahan		lepas

Potensi:

lemah		kuat
rendah		tinggi

Aktivitas:

pasif		aktif
statis		dinamis

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Nama :_____ Umur :_____

SKALA DETEKSI SUASANA HATI

Di bawah ini terdapat sejumlah kata-kata yang menggambarkan perasaan yang Anda alami. Yang perlu Anda lakukan adalah **memantau kembali** kondisi diri Anda sepanjang minggu ini. Bacalah setiap kata dengan teliti lalu **lingkari** angka yang paling tepat menggambarkan keadaan perasaan anda SEMINGGU INI.

Angka-angka yang tercantum di belakang setiap kata berarti:

0 = tidak sama sekali
1 = sedikit/jarang
2 = kadang-kadang
3 = sering
4 = selalu

1.	Tegang	0	1	2	3	4
2.	Marah	0	1	2	3	4
3.	Tidak senang	0	1	2	3	4
4.	Bingung	0	1	2	3	4
5.	Murung	0	1	2	3	4
6.	Lesu, tak bergairah	0	1	2	3	4
7.	Jengkel	0	1	2	3	4
8.	Sedih	0	1	2	3	4
9.	Tidak mampu berkonsentrasi	0	1	2	3	4
10.	Bosan	0	1	2	3	4
11.	Kesal	0	1	2	3	4
12.	Lelah	0	1	2	3	4
13.	Tidak ada yang dikuatirkan	0	1	2	3	4
14.	Nyaman	0	1	2	3	4
15.	Rileks	0	1	2	3	4
16.	Senang	0	1	2	3	4

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Petunjuk Penggunaan Skala Deteksi Emosi

Perhatikan dengan seksama ekspresi wajah subjek, gerakan tangan,dan tubuh bagian atas. Untuk wajah, terutama perhatikan kerutan-kerutan yang ada di tempat-tempat tertentu. Untuk gerak tangan dan tubuh, perhatikan jari-jari tangan, lengan, dan tubuh bagian atas. Berikan nilai 1 s/d 5 berdasarkan ada atau tidaknya kerutan di wajah, gerakan bibir, kepala, tangan dan gerakan lengan. Berikan nilai satu bila tidak ada gerakan (TA), berikan nilai 2 bila gerakan samar-samar (SS), nilai 3 bila gerakan agak jelas (AJ), nilai 4 untuk gerakan yang jelas (J), dan nilai 5 untuk gerakan yang sangat jelas (SJ).

Cara penilaian dengan memberikan tanda centang pada kolom yang tersedia. Makin rendah nilai yang diperoleh makin dikit reaksi emosi yang dialami subjek demikian sebaliknya.

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Skala Deteksi Emosi

No	Bagian Tubuh	Kerutan/Gerakan				
		TA(1)	SS(2)	AJ(3)	J (4)	SJ(5)
1	Kerutan di dahi (antara mata)					
2	Kerutan di sekitar mata					
3	Kerutan di sekitar hidung					
4	Kerutan di sekitar mulut					
5	Gerakan bibir atas ke atas					
6	Gerakan kedua bibir ke atas					
7	Gerakan kedua bibir ke bawah					
8	Gerakan kedua bibir ke depan					
9	Menggeleng-gelengkan kepala					
10	Mengangguk-anggukan kepala					
11	Mengetuk-ngetukan jari tangan					
12	Meremas-remas jari tangan					
13	Tangan mencengkeram kursi					
14	Lengan terangkat ke bahu					
15	Lengan bergerak ke depan					
16	Lengan bergerak ke belakang					
	Total Nilai					

Keterangan:

Selama eksperimen, subjek diberi instruksi untuk mengekspresikan apa saja yang dirasakannya selama mendengarkan gending. Subjek diminta bebas mengungkapkan perasaannya melalui wajah, kepala, lengan, dan tangan yang dapat diamati secara jelas.

- **TABEL RINGKASAN DISKUSI KELOMPOK TERARAH dan ANALISIS ISI**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
1	*Yo...ana irama sing ora wangun soyo neh sing ora kulina, nek seko irama joged pancen sing kealonen kudu ditompo...men cocok karo gerak tarine. Gendhing pertama kuwi iramane ra masalah, sing ke loro dadhi kele-kele sing gawe irama karo teknik nabuh dadhi ra umum. Mergo perlu dipadhake lha kuwi sing gawe ra kepenak. Sing gawe ra enak kuwi yo... mergo ra biasa kuwi (D)* (Ya...ada irama yang tidak pantas apa lagi bagi yang tidak biasa, kalau dari irama tarian memang irama yang sangat lambat harus diterima...agar sesuai dengan gerak tarinya. Gendhing pertama tidak ada masalah, yang kedua jadi kele-kele yang membuat irama dengan teknik memainkannya menjadi tidak biasa. Karena perlu disamakan lha itu yang membuat jadi tidak enak. Yang membuat jadi tidak enak itu ya...karena tidak biasa)(D).	irama rasa familiaritas teknik	*wangun – ora wangun* *kulina – ora kulina* cepat – lambat *kele-kele – pas* *cocok – ora cocok* enak – tidak enak biasa – tidak biasa umum – tidak umum *kepenak – ora kepenak* sama – tidak sama normal – tidak normal biasa – tidak biasa salah - benar sempurna - tidak sempurna	√ **tempo** √ **respon emosi** √ **musik – gamelan Jawa**
2	*Ono irama sing ra normal wong kudune kendangan siji dimaenke loro, sing loro didadeke siji krasane abot (M)* (Ada irama yang tidak normal seharusnya kendangan irama satu dimainkan irama dua, yang irama dua dijadikan irama satu, rasanya berat sekali) (M)	Irama teknik/ kepekaan	normal – tidak normal berat – ringan salah - benar	√ **tempo** √ **musik – gamelan Jawa**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
3	*Wah koq ndadak trus perasaan ki dadhi nglangut soyo nggon gropak rak kendangane ketok banget...yo iso wae ra kepenak mergo ra kulina (D).* (Wah mengapa tiba-tiba, perasaan jadi nglangut apalagi di bagian gropak dari pukukan kendangnya jelas sekali...ya bisa saja menjadi tidak enak karena tidak terbiasa) (D).	rasa teknik / kepekaan	menyenanglan – tidak menyenangkan *nglangut – ora nglangut* *kulina – ora kulina* biasa – tidak biasa	√ **respon emosi** √ **musik – gamelan Jawa**
4	*Miturut ku gendhing gamelan kuwi kudhu kena dinikmati mongko aku wani ngomong kanggo dewe nek ngrungoake gendhing kuwi padha karo ndonga. Nek khusuk ngrungoake gendhing awake dewe bisa kegawa ning nggon irama utawa gendhing sing diunekake kuwi. Nganti ora mikir sesuk ki kepiye. Pada karo semedhi khusuk antarane sadar lan ora. Kaya ngrungoake gendhing sing pertama...kuwi kepenak wae ora ana apa-apa. Ning pas gendhing ke loro ngerti-ngerti koq ana irama sing bedha, ngerti-ngerti perasaanku berontak....lho aku koq dingenekake....? Wektu kuwi perasaanku lara... lha wonglagi wae ngrasaake kepenak ngerti-ngerti ana sing gawe kaget...lha kaya gendhinge diwolak-walik. Rasane ora mung koyo diuncalake seka dhuwur...woo..penyakit ki ! Diowahi ngono kuwi rasane mangkel, nesu...bajigur ki...koyo gulu dientepi watu (B)*	nilai / makna irama rasa	sangat berarti (setara berdoa) – tidak berarti *kepenak – ora kepenak* *kena dinikmati – ora kena dinikmati* berontak - tenang *kaget – ora kaget* *mangkel – ora mangkel* *nesu – ora nesu* *loro – ora loro*	√ **musik – gamelan Jawa** √ **tempo** √ **respon emosi**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
	(Menurut saya, gendhing gamelan itu harus dapat dinikmati sehingga saya berani katakan untuk pribadi bahwa mendengarkan gendhing itu sama dengan berdoa. Kalau mendengarkan gendhing dengan khusuk, kita bisa terbawa pada irama atau gendhing yang dimainkan itu. Sehingga tidak berpikir esok bagaimana. Sama seperti semedi khusuk antara sadar dan tidak. Seperti ketika mendengarkan gendhing yang pertama....itu enak saja tidak ada apa-apa. Tetapi ketika gendhing kedua tahu-tahu ada irama yang beda, tiba-tiba perasaan ini berontak....lo kenapa saya dibuat begini?. Ketika itu perasaan saya sakit lha baru saja merasakan yang enak tahu-tahu ada yang bikin terkejut...gendhingnya seperti dibolak-balik. Rasanya tidak hanya seperti dibanting dari tempat tinggi...woo...penyakit ini! Diubah begitu rasanya mangkel, marah....bajigur seperti leher ditimpa dengan batu) (B).			
5	*Dadhi,....pancen pengalaman wong sing ngrungoake kuwi yo ana pengaruh...waktu ngrungoake sing pertama kuwi kontrole isih genep. Gendhing sing ke loro kuwi kendange padha mlayu ning karo alone ra jamak.....marake mangkel .....digondheli... .wah kudu muni-muni ki ketimbang ngampet.....(B).* (Jadi,....memang pengalaman pendengar juga memiliki pengaruh...ketika mendengar yang pertama itu kontrolnya masih lengkap. Gendhing yang kedua kendangannya	teknik pengalaman/ kepekaan pengetahuan rasa	luas – dangkal sesuai – tidak sesuai marah – tidak marah tertahan – lancar / lepas	√ **musik – gamelan Jawa** √ **tempo** √ **respon emosi**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
	sama tetapi cepat dan lambatnya tidak sesuai...membuat mangkel....diglayuti...wah harus marah dari pada ditahan....)(B).			
6	*Rasane sumpeg kuwi wong bukane enak koq ngerti-ngerti digawe ora kepenak, iki mestine dijarag (M)* Rasanya ya sumpeg, awalnya enak kenapa tiba-tiba dibuat tidak enak, ini pasti direkayasa (M)	rasa	*sumpeg – lega* *kepenak – ora kepenak*	√ **respon emosi**
7	*Yo cepet karo alon ki ana...misale kanggo uyon-uyon, wayangan apa joged. Iso wae layane pada. Nek kanggo uyon-uyon irama sakmene iso dirasaake ning nek ngiringi wayangan....awake dhewe manut karakter wayang apa tarine. Miturutku yo kanggo apa dhisik kepentingane. Nek kanggo uyon-uyon yo cepete digawe sing paling penak tur ra diowahi.....nek nggo joged sok-sok ra penak merga manut karakter joged. Misale....kudhune gambange ra iso mlebu ning dipekso kudhu mlebu mergo karepe joged kuwi. Koyo bedhaya kuwi kanggo karawitan le ngiringi ra kepenak mergo ono sing irama ne alon banget.....(M)* (Ya cepat dan lambat itu ada...misalnya untuk uyon-uyon, wayangan atau tari. Bisa saja temponya sama. Kalau untuk keperluan uyon-uyon irama segini bisa dirasakan tetapi kalau untuk mengiringi wayangan....kita harus ikut karakter wayang atau tariannya. Menurut saya untuk kepentingan	fungsi interpretasi irama	tepat – tidak tepat enak- tidak enak *cepet – alon* *diowahi – tetep* *kepenak – ora kepenak*	√ **musik – gamelan Jawa** √ **tempo**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
	apa dulu. Kalau untuk uyon-uyon ya....kecepatannya dibuat yang paling enak dan tidak usah diubah-ubah kalau untuk mengiringi tarian sering kali tidak enak karena harus mengikuti karakter tariannya. Misalnya,....seharusnya gambang tidak bisa masuk tetapi harus masuk karena kehendak tariannya. Seperti bedhaya itu untuk iringan karawitan tidak enak karena ada irama yang sangat lambat....)(M)			
8	*Dewe ki kerep nganggo irama nggo nyeritaake laya nek ngarani cepet-alone gendhing. Dadhi..pemahaman laya kuwi yo irama (D)* Kita sering menggunakan irama untuk membicarakan tempo ketika mengatakan cepat-lambatnya sebuah gendhing. Maka...pemahaman tempo itu irama (D)	irama / *laya*	*cepet - alon*	√ tempo
9	*Pancen laya kuwi arang diomongke biasane dibasake irama (S)* Memang tempo itu jarang dibicarakan biasanya disebut irama (S)	irama / *laya*	*cepet - alon*	√ tempo
10	*Pengendhang sing biasane mbasake laya karo komentar "iki kesesegan kudune alon malah dicepetake" (M)*	irama / *laya*	*cepet – alon* *kesesegan - cepet*	√ tempo

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
	(Pengendhang yang biasa membahasakan tempo dengan komentar ini: "kecepatan seharusnya lambat malah dibuat cepat") (M)			
11	*Nek nguneake irama sing padha ning isianne ana sing rengket karo ora kuwi sing endi? (K)* Kalau memainkan irama yang sama tetapi isiannya ada yang rapat dan tidak itu yang mana? (K).	irama / *laya*	*cepet – alon* rapat - jarang	√ **tempo**
	Nek arep diisi ora bisa mergo nanggung, nek diisi ora kepenak, kuwi mergo layane dhurung ketemu. Nek layane wis ketemu mesti kepenak nek diisi. Laya kuwi padha wae irama sing wis dadhi....wis mapan (S). (Kalau mau diisi tidak bisa karena setengah-setengah, kalau diisi tidak enak, itu disebabkan temponya belum ketemu. Kalau tempo telah ditemukan, isiannya pasti menjadi enak. Tempo itu sama saja dengan irama yang telah jadi.....sudah menetap) (S).	irama / *laya*	*cepet – alon* *nanggung- ora nanggung* *dadhi – durung dadhi* *mapan – ora mapan*	√ **tempo**
12	*Laya kuwi sing paling penting....enak karo ra kepenake yo ning kana koq.."(B).* (Tempo itu yang paling penting....enak tidak enaknya terletak di sana koq...)(B).	irama / *laya*	*kepenak – ora kepenak*	√ **tempo**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
13	*Nek layane kealonan utowo kecepetan yo padha-padha ra kepenak" (M).* (kalau tempo kelambatan atau kecepatan ya, sama-sama tidak enak) (M)	irama / *laya*	*cepet – alon]* *kepenak – ora kepenak*	√ **tempo**
14	*Sing cetha....kabeh gendhing ki patokane ning nggon laya, angger laya rusak yo rusak kabeh" (S).* (yang jelas,....semua gendhing berpatokan pada tempo, kalau temponya rusak, ya rusak semua) (S)	irama / *laya*	*cepet – alon* *rusak – ora rusak / bener*	√ **tempo**
15	*Irama lan laya kuwi pancen ana bedhane sithik. Nek wong numpak brompit nggo persneleng siji. Persneleng siji kuwi iso cepet yo iso alon ning tetep persneleng siji. Padha nek perseneleng loro nah....cepet alone kuwi laya. Rongko iramane kuwi yo persneleng. Dadhi laya kuwi iso diarani nyawane irama, wong irama kuwi mung bentuk koq (S).* (Irama dan tempo itu memang ada sedikit perbedaan. Kalau orang naik sepeda motor pakai persneleng satu. Perseneleng satu itu bisa cepat dan bisa lambat tetapi tetap perseneleng satu. Sama dengan persneleng dua nah....cepat lambatnya itu yang disebut tempo. Kerangka iramanya adalah perseneleng Sehingga tempo dapat dikatakan nyawa dari irama, karena irama itu hanya	irama / *laya* nilai / makna	cepat – lambat sangat bermakna – tidak bermakna (tempo sebagai nyawa irama)	√ **tempo** √ **musik – gamelan Jawa**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
	bentuk. (S)			
16	*Aku ora patek nggatheake suarane mergo konsentrasiku nenggon garapane. Nek enak yo gendhing sing pertama kuwi.....nek kulina. Tur sing ngrawit cukup mampu .....dadhine aku ra patio mikir gamelane. (D.)* (Saya tidak terlalu memperhatikan suaranya karena terkonsentrasi pada musiknya. Kalau dibilang enak ya gendhing yang pertama....itu kalau sudah biasa. Dan yang memainkannya cukup mampu....sehingga saya tidak terlalu memikirkan gamelannya.) (D).	suara teknik/ pengetahuan/ pengalaman	*kulina – ora kulina*	√ ***timbre*** √ ***tempo***
17	*Nek aku terus terang wae mergo ra ahli yo... ra iso mbedake mergo kawit awal mung ngrungoke lagune. Bar kuwi konco-konco tak takoni mung ngomong ora masalah (K).* (Kalau saya terus terang saja karena tidak ahli ya....tidak bisa membedakan karena dari awal cuma mendengarkan lagunya. Setelah itu teman-teman saya mintai pendapat juga mengatakan tidak masalah)(K).	teknik/ pengetahuan/ pengalaman	beda – tidak beda	√ ***timbre*** √ **musik – gamelan Jawa**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
18	*Aku mung mikir wong ono gamelan apik kok yo nganggo simo sing suarane ampang ngono (B)* Saya cuma berpikir ada gamelan baik kenapa menggunakan gamelan besi yang suaranya ringan (B).	suara	*ampang – ora ampang*	√ ***timbre***
19	*Soale bisa wae gamelane elek ning dadhi kepenak mergo sing nguneke apik utowo kuwalikane (J).* (Karena bisa saja gamelannya jelek tetapi jadi enak karena yang memainkannya pandai atau sebaliknya)(J).	suara	*kepenak – ora kepenak*	√ ***timbre***
20	*Nek nggo uyon-uyon iramane sak mene wis keno ning nek nggo wayangan bedo awake dewe kudu manut karo wayange kuwi. Nek nggo ngiringi joged biasane yo ra enak mergo melu tarine. Koyo nggone pak Narto Sabdo kuwi kabeh gendhinge sigrak. Nek sing iki malah ono sing ngaco coro-coro montor ki nek suwuk yo langsam rasane arep gropak ning ora soale gropak kudu cepet (M)* (Kalau untuk uyon-uyon, irama secepat ini sudah sesuai tapi kalau untuk mengiringi wayanga, berbeda dan kita harus menurut pada wayangnya itu. Kalau untuk mengiringi tari biasanya tidak enak karena harus mengikuti tariannya. Seperti punya pak Narto Sabdo hampir semua gendhingnya sigrak. Kalau gendhing yang ini ada yang	fungsi interpretasi irama	sesuai – tidak sesuai enak- tidak enak *cepet – alon* *diowahi – tetep* *kepenak – ora kepenak*	√ **musik – gamelan Jawa** √ **tempo**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
	kacau seperti sepeda motor kalau mau suwuk harusnya lambat, tadi rasanya mau gropak tetapi tidak jadi karena gropak harusnya cepat. ning ora soale gropak kudu cepet (M)			
21	*Yo nek persneleng siji sing paling penak, cepete sak mene padha karo persneleng sing liyane ning nek perseneleng siji wis kecepetan mbok yo mlebu persneleng loro. Soale nek kroso ra penak kuwi mesti urusan layane (S).* Ya persneleng satu yang paling enak, Kecepatan begitu sama dengan persneleng lainnya. Tetapi kalau dirasa perseneleng satu sudah terlalu cepat sebaiknya masuk persneleng dua. Karena kalau dirasa tidak enak itu pasti masalah temponya (S).	irama / *laya*	cepat – lambat tepat – tidak tepat sesuai – tidak sesuai	√ **tempo**
22	*Tabuhan kuwi nek tetep neng irama siji yo layane tetep ning nek jenenge wis ganti irama yo otomatis loyo melu dirubah. Ben irama gowo karepe dewe-dewe nek nggon garapan laya kuwi dadhi roh ne irama. Pokoke ngene wae nek laya kealonen ra penak soyo maneh nek kecepeten (B).* (Musik itu kalau tetap di irama satu ya temponya tetap, tetapi yang namanya ganti irama otomatis tempo juga ikut berubah. Setiap irama punya maksud sendiri-sendiri kalau pada teknik penggarapan tempo menjadi roh nya irama.	irama / *laya* nilai/makna interpretasi	cepat – lambat tetap – tidak tetap bermakna (sebagai rohnya irama) – tidak bermakna tepat – tidak tepat	√ **tempo**

NO	ISI PERNYATAAN SUBJEK	PROPERTI	DIMENSI	KATEGORI
	Pokoknya kalau tempo terlalu lambat tidak enak apalagi kalau terlalu cepat) (B).			
23	*Nek neng Solo patokane seko peking, nek pekinge wis ra kuat yo ganti irama mergo ben irama ki ono batese nek arep cepet neh...ganti irama (J).* (Tetapi di Solo berdasarkan dari peking, kalau peking nya sudah tidak kuat lagi ya ganti irama karena tempo setiap irama itu ada batasnya. Kalau mau lebih cepat lagi.....ganti irama)(J)	irama / *laya*	cepat - lambat	√ **tempo**
24	*Koq ya nganggo wesi ... (* Koq memakai besi... *)* *(*Kemudian ditanyakan mengapa jika memakai besi, apakah ada bedanya*)* *..... ya ampang...* *(*ditanyakan lagi apa maksudnya *)* *cempreng ? ... ya kuwi* (Ya itu ...) (S)	suara	*ampang – ora ampang* *cempreng - cempreng*	√ ***timbre***
25	Yen nganggo simo (besi) kaya suwuk gojag gajeg ... ( ) (Kalau memakai besi seperti suwuk yang kesannya sangat ragu-ragu, tidak pasti) (.....)	suara teknik	*kepenak – ora kepenak* *gojag gajeg - mantep*	√ ***timbre*** √ **musik gamelan Jawa** –

1. UJI ANALISIS FAKTOR SKALA SUASANA HATI

Component Matrix[a]

	Component					
	Faktor 1	Faktor 2	Faktor 3	Faktor 4	Faktor 5	Faktor 6
Faktor 1	.519	.447	.176	.239	8.521E-03	-.177
Faktor 1	.569	.577	.162	-.119	-.213	.241
Faktor 2	.487	-.060	3.180E-02	.387	-.156	-.344
Faktor 2	.556	.415	-.012	-.021	-.216	-.453
Faktor 2	.536	.252	.426	-.152	-.219	.325
Faktor 3	.461	-.232	-.445	9.043E-02	3.545E-02	-.073
Faktor 3	.580	-.150	-.217	.363	5.788E-02	.137
Faktor 3	.745	-.435	-.043	-.241	-.036	4.948E-02
Faktor 4	.733	-.441	-.097	-.219	7.427E-02	-.011
Faktor 4	1.700E-02	-.537	.151	.484	-.442	5.513E-02
Faktor 4	.798	-.505	-.073	-.177	5.055E-02	7.552E-02
Faktor 4	1.984E-02	-.303	.517	.591	-.032	.217
Faktor 4	.760	-.427	.161	-.131	-.004	4.487E-02
Faktor 5	.234	.404	1.745E-03	.373	.575	.303
Faktor 5	.471	.374	-.351	.179	.103	-.197
Faktor 5	.219	8.213E-02	-.540	6.459E-02	.110	.485
Faktor 5	.634	1.639E-02	.352	-.195	.288	-.125
Faktor 5	.384	-.068	.325	.110	.568	-.226
Faktor 6	.476	.166	-.431	.258	-.216	-.049
Faktor 6	.649	.517	.120	-.106	-.279	.202

Extraction Method: Principal Component Analysis.

a. 6 components extracted.

Component Transformation Matrix

Component	Faktor 1	Faktor 2	Faktor 3	Faktor 4	Faktor 5	Faktor 6
Faktor T_A	.704	.464	.458	.026	.234	.153
Faktor D_D	-.627	.560	.300	-.406	.165	.105
Faktor A_H	-.059	.418	-.344	.409	.384	-.624
Faktor V	-.324	-.188	.435	.731	.230	.287
Faktor F	.044	-.335	-.214	-.290	.842	.218
Faktor C	.008	.385	-.590	.220	-.094	.668

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Rotated Component Matrix[a]

	Component					
	Faktor 1	Faktor 2	Faktor 3	Faktor 4	Faktor 5	Faktor 6
Faktor 1	-.004	.449	.517	3.732E-02	.341	-.031
Faktor 1	6.016E-02	.842	.230	-.126	6.071E-02	.127
Faktor 2	.244	5.324E-02	.599	.302	.106	-.105
Faktor 2	.126	.388	.687	-.211	4.952E-02	-.220
Faktor 2	.236	.796	-.036	.110	8.097E-02	-.032
Faktor 3	.468	-.158	.370	-.036	-.044	.308
Faktor 3	.401	5.966E-02	.360	.266	.147	.416
Faktor 3	.877	.160	9.940E-02	2.299E-02	-.004	5.089E-02
Faktor 4	.872	6.472E-02	.132	-.027	7.418E-02	7.221E-02
Faktor 4	.164	-.151	6.747E-02	.774	-.293	-.068
Faktor 4	.943	.102	.107	6.804E-02	6.988E-02	.125
Faktor 4	-.018	3.920E-02	-.123	.824	.242	-.044
Faktor 4	.836	.224	8.252E-02	.173	.131	-.037
Faktor 5	-.182	.190	8.781E-02	1.529E-02	.663	.512
Faktor 5	6.232E-02	.138	.620	-.226	.183	.272
Faktor 5	.123	6.029E-02	2.913E-02	-.127	-.081	.746
Faktor 5	.490	.342	.102	-.100	.495	-.198
Faktor 5	.282	-.022	.104	3.629E-02	.728	-.147
Faktor 6	.163	.138	.603	8.725E-03	-.145	.353
Faktor 6	.150	.832	.305	-.096	4.572E-03	.122

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 10 iterations.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Faktor 1_A	5.805	29.03	29.027	5.805	29.03	29.027	4.083	20.42	20.415
Faktor D_D	2.658	13.29	42.319	2.658	13.29	42.319	2.728	13.64	34.055
Faktor A_H	1.663	8.313	50.632	1.663	8.313	50.632	2.355	11.77	45.829
Faktor V	1.424	7.122	57.753	1.424	7.122	57.753	1.640	8.198	54.028
Faktor F	1.258	6.290	64.044	1.258	6.290	64.044	1.612	8.058	62.086
Faktor C	1.079	5.396	69.439	1.079	5.396	69.439	1.471	7.353	69.439

Extraction Method: Principal Component Analysis.

2. UJI ANALISIS FAKTOR SKALA RESPON EMOSI

Component Matrix[a]

	Component		
	1	2	3
Faktor 1	.763	-.440	9.484E-03
Faktor 1	.880	-.039	-.189
Faktor 1	.889	-.043	-.062
Faktor 1	.848	-.330	-.029
Faktor 1	.879	-.021	-.154
Faktor 1	.889	-.043	-.062
Faktor 1	.889	-.043	-.062
Faktor 1	.763	-.440	9.484E-03
Faktor 1	.880	-.039	-.189
Faktor 1	.889	-.043	-.062
Faktor 1	.360	4.353E-02	.868
Faktor 1	.770	-.427	1.812E-02
Faktor 1	.289	8.569E-02	.865
Faktor 1	.528	.459	.317
Faktor 1	.545	.454	.298
Faktor 2	.572	.505	-.050
Faktor 2	.573	.492	-.039
Faktor 3	.313	.695	-.265
Faktor 3	.282	.704	-.264

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Rotated Component Matrix[a]

	Component		
	1	2	3
Faktor 1	.866	-.091	.134
Faktor 1	.828	.355	1.780E-02
Faktor 1	.817	.329	.142
Faktor 1	.899	4.835E-02	.130
Faktor 1	.814	.363	5.366E-02
Faktor 1	.817	.329	.142
Faktor 1	.817	.329	.142
Faktor 1	.866	-.091	.134
Faktor 1	.828	.355	1.780E-02
Faktor 1	.817	.329	.142
Faktor 1	.161	1.954E-03	.927
Faktor 1	.865	-.078	.145
Faktor 1	8.076E-02	1.213E-02	.912
Faktor 1	.219	.555	.484
Faktor 1	.239	.560	.469
Faktor 2	.297	.690	.146
Faktor 2	.302	.677	.155
Faktor 3	1.930E-02	.801	-.099
Faktor 3	-.012	.796	-.104

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Component Transformation Matrix

Component	1	2	3
1	.887	.398	.233
2	-.433	.893	.120
3	-.160	-.208	.965

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.577	50.41	50.407	9.577	50.41	50.407	8.073	42.49	42.491
2	2.591	13.64	64.046	2.591	13.64	64.046	3.672	19.33	61.820
3	1.947	10.25	74.293	1.947	10.25	74.293	2.370	12.47	74.293
4	1.632	8.590	82.883						
5	1.256	6.608	89.491						
6	.977	5.144	94.635						
7	.774	4.073	98.708						
8	.114	.598	99.306						
9	.041	.217	99.522						
10	.031	.165	99.687						
11	.025	.132	99.819						
12	.018	.094	99.913						
13	.009	.049	99.962						
14	.007	.038	100.000						
15	.000	.000	100.000						
16	.000	.000	100.000						
17	.00	.000	100.000						
18	.00	.000	100.000						
19	.00	.000	100.000						

Extraction Method: Principal Component Analysis.

3. UJI VALIDITAS dan RELIABILITAS SKALA DETEKSI SUASANA HATI

****** Method 2 (covariance matrix) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	DSH1	1.6418	.9162	67.0
2.	DSH2	1.5373	.9265	67.0
3.	DSH3	2.4776	.8413	67.0
4.	DSH4	1.4776	.8766	67.0
5.	DSH5	1.7164	.9013	67.0
6.	DSH6	1.2836	1.0983	67.0
7.	DSH7	1.4179	.9236	67.0
8.	DSH8	1.6269	.9667	67.0
9.	DSH9	1.5075	1.0353	67.0
10.	DSH10	1.5672	.8914	67.0
11.	DSH11	1.6716	1.0501	67.0
12.	DSH12	1.7313	1.0088	67.0
13.	DSH13	1.6269	.9348	67.0
14.	DSH14	2.2090	.8079	67.0
15.	DSH15	1.7910	.9135	67.0
16.	DSH16	2.0000	.8528	67.0
17.	DSH17	1.7761	.9664	67.0
18.	DSH18	2.1642	1.0531	67.0
19.	DSH19	1.5970	1.0307	67.0
20.	DSH20	1.7910	.9135	67.0

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 67.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	34.6119	90.4835	9.5123	20

	Mean	Minimum	Maximum	Range	Max/Min	Variance
Item Means	1.7306	1.2836	2.4776	1.1940	1.9302	.0833
Item Variances	.8998	.6526	1.2062	.5536	1.8482	.0227
Inter-item Covariances	.1908	-.1970	.8091	1.0061	-4.1079	.0326
Inter-item Correlations	.2130	-.2745	.8957	1.1702	-3.2626	.0394

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
DSH1	32.9701	81.7264	.4780	.5936	.8340
DSH2	33.0746	83.2216	.3788	.4123	.8382
DSH3	32.1343	86.4514	.2125*	.4973	.8445
DSH4	33.1343	82.7847	.4345	.3984	.8359
DSH5	32.8955	82.8223	.4175	.4128	.8366
DSH6	33.3284	80.1936	.4618	.5860	.8346
DSH7	33.1940	82.8254	.4048	.5492	.8371
DSH8	32.9851	80.3786	.5291	.5103	.8315
DSH9	33.1045	81.0344	.4494	.5644	.8351
DSH10	33.0448	80.3768	.5826	.8495	.8297
DSH11	32.9403	85.9964	.1738*	.2141	.8482
DSH12	32.8806	79.9552	.5272	.5867	.8314
DSH13	32.9851	79.2270	.6239	.8578	.8274
DSH14	32.4030	84.9109	.3305	.3988	.8400
DSH15	32.8209	79.7856	.6044	.7777	.8285
DSH16	32.6119	89.3926	.0225*	.4124	.8517
DSH17	32.8358	77.8060	.6888	.9358	.8241
DSH18	32.4478	88.5540	.0414*	.4046	.8543
DSH19	33.0149	80.4392	.4858	.8487	.8334
DSH20	32.8209	78.8159	.6679	.8484	.8257

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	298.5955	66	4.5242		
Within People	995.1500	1273	.7817		
Between Measures	106.0739	19	5.5828	7.8743	.0000
Residual	889.0761	1254	.7090		
Nonadditivity	12.5134	1	12.5134	17.8872	.0000
Balance	876.5627	1253	.6996		
Total	1293.7455	1339	.9662		
Grand Mean	1.7306				

Tukey estimate of power to which observations must be raised to achieve additivity = 2.2592

Reliability Coefficients 20 items. N of Cases = 67.0
Alpha = .8433 Standardized item alpha = .8441

Nb : Items dengan tanda * adalah item yang dinyatakan gugur

4. UJI VALIDITAS DAN RELIABILITAS SKALA RESPON EMOSI

****** Method 2 (covariance matrix) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	RE1	.2048	1.0905	83.0
2.	RE2	.2169	1.1482	83.0
3.	RE3	.4337	1.2217	83.0
4.	RE4	.3253	1.1802	83.0
5.	RE5	.3133	1.3519	83.0
6.	RE6	.0843	1.2416	83.0
7.	RE7	-.3976	1.0813	83.0
8.	RE8	.5783	1.0834	83.0
9.	RE9	.1928	.8759	83.0
10.	RE10	.1928	1.2539	83.0
11.	RE11	.2289	1.2329	83.0
12.	RE12	.5422	1.2027	83.0
13.	RE13	.6506	1.0756	83.0
14.	RE14	.6988	1.1554	83.0
15.	RE15	.6145	1.2181	83.0
16.	RE16	.0482	1.2582	83.0
17.	RE17	-.1096	1.0821	83.0
18.	RE18	.4458	1.2223	83.0
19.	RE19	.4096	1.2976	83.0
20.	RE20	.4940	1.3008	83.0
21.	RE21	.1807	1.3538	83.0

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 83.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	6.3482	205.7530	14.3441	21

Item Means	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.3023	-.3976	.6988	1.0964	-1.7576	.0715

Item Variances	Mean	Minimum	Maximum	Range	Max/Min	Variance
	1.4211	.7673	1.8328	1.0655	2.3887	.0661

Inter-item Covariances	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.4188	-.2449	1.0644	1.3092	-4.3466	.0700

Inter-item Correlations	Mean	Minimum	Maximum	Range	Max/Min	Variance
	.2917	-.2104	.7233	.9337	-3.4378	.0299

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
RE1	6.1434	191.1379	.4453	.5137	.8948
RE2	6.1313	182.5193	.7064	.7462	.8881
RE3	5.9145	180.3854	.7275	.8248	.8872
RE4	6.0229	183.4947	.6526	.6696	.8894
RE5	6.0349	186.7086	.4660	.5754	.8947
RE6	6.2639	184.8443	.5737	.6855	.8915
RE7	6.7458	190.1810	.4829	.6122	.8939
RE8	5.7699	188.0221	.5573	.5820	.8921
RE9	6.1554	194.7293	.4195	.4043	.8955
RE10	6.1554	191.8976	.3536	.3264	.8976
RE11	6.1193	180.7321	.7089	.6280	.8877
RE12	5.8060	189.0498	.4613	.4492	.8945
RE13	5.6976	197.2710	.2424*	.4508	.8996
RE14	5.6494	196.9001	.2318*	.4471	.9002
RE15	5.7337	184.4308	.5996	.5692	.8908
RE16	6.3000	181.7163	.6619	.6440	.8889
RE17	6.4578	194.3976	.3375	.5424	.8974
RE18	5.9024	192.0758	.3596	.3802	.8973
RE19	5.9386	188.1426	.4474	.5325	.8951
RE20	5.8542	182.1152	.6251	.5780	.8899
RE21	6.1675	178.3986	.7057	.7048	.8874

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	803.4165	82	9.7978		
Within People	1762.3143	1660	1.0616		
Between Measures	118.6101	20	5.9305	5.9171	.0000
Residual	1643.7042	1640	1.0023		
Total	2565.7308	1742	1.4729		
Grand Mean	.3023				

Reliability Coefficients 21 items
Alpha = .8977 Standardized item alpha = .8963

Nb : Items dengan tanda * adalah items yang dinyatakan gugur

5. UJI RELIABILITAS PENENTUAN RATER EKSPERIMEN

****** Method 2 (covariance matrix) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

		Mean	Std Dev	Cases
1.	RATER1	5.5000	2.4555	18.0
2.	RATER2	6.9444	3.0384	18.0
3.	RATER3	4.3889	3.1834	18.0
4.	RATER4	5.3333	2.0580	18.0
5.	RATER5	5.2778	2.5160	18.0
6.	RATER6	6.2222	2.0163	18.0

	Mean	Variance	Std Dev	N of Variables
Statistics for Scale	33.6667	149.7647	12.2378	6

	Mean	Minimum	Maximum	Range	Max/Min	Variance
Item Means	5.6111	4.3889	6.9444	2.5556	1.5823	.7691
Item Variances	6.6710	4.0654	10.1340	6.0686	2.4928	6.3602
Inter-item Covariances	3.6580	.7451	7.5523	6.8072	10.1360	3.7882
Inter-item Correlations	.5363	.1796	.8791	.6995	4.8957	.0382

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
RATER1	28.1667	100.2647	.8840	.9211	.8262
RATER2	26.7222	92.3301	.8255	.8906	.8331
RATER3	29.2778	89.6242	.8296	.7831	.8331
RATER4	28.3333	122.8235	.4978	.5706	.8857
RATER5	28.3889	109.3105	.6486	.5844	.8647
RATER6	27.4444	124.7320	.4656	.6560	.8896

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Analysis of Variance

Source of Variation	Sum of Sq.	DF	Mean Square	F	Prob.
Between People	424.3333	17	24.9608		
Within People	325.3333	90	3.6148		
Between Measures	69.2222	5	13.8444	4.5948	.0009
Residual	256.1111	85	3.0131		
Nonadditivity	.6864	1	.6864	.2257	.6359
Balance	255.4247	84	3.0408		
Total	749.6667	107	7.0062		
Grand Mean	5.6111				

Tukey estimate of power to which observations, must be raised to achieve additivity = 1.2819

Reliability Coefficients 6 Raters With N of Respons = 18.0
Alpha = .8793 Standardized item alpha = .8741

6. UJI ASUMSI

a. Uji Normalitas Sebaran Data Respon Emosi Pengrawit

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
TAP	16	14.25	2.35	10	19
TAB	16	3.44	2.85	-2	7
TMP	16	-12.69	3.42	-22	-8
TMB	16	-17.88	4.73	-29	-10

One-Sample Kolmogorov-Smirnov Test

		TAP	TAB	TMP	TMB
N		16	16	16	16
Normal Parameters[a,b]	Mean	14.25	3.44	-12.69	-17.88
	Std. Deviation	2.35	2.85	3.42	4.73
Most Extreme Differences	Absolute	.167	.203	.127	.136
	Positive	.167	.136	.091	.096
	Negative	-.110	-.203	-.127	-.136
Kolmogorov-Smirnov Z		.669	.813	.507	.543
Asymp. Sig. (2-tailed)		.762	.523	.960	.929

a. Test distribution is Normal.

b. Calculated from data.

b. Uji Normalitas Sebaran Data Respon Emosi Pandhemen

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
TAP	16	-2.88	5.83	-14	5
TAB	16	-6.88	4.41	-14	-1
TMP	16	-.31	7.66	-12	14
TMB	16	6.44	2.85	2	13

One-Sample Kolmogorov-Smirnov Test

		TAP	TAB	TMP	TMB
N		16	16	16	16
Normal Parameters[a,b]	Mean	-2.88	-6.88	-.31	6.44
	Std. Deviation	5.83	4.41	7.66	2.85
Most Extreme Differences	Absolute	.127	.127	.137	.130
	Positive	.088	.127	.137	.130
	Negative	-.127	-.123	-.119	-.071
Kolmogorov-Smirnov Z		.506	.510	.549	.522
Asymp. Sig. (2-tailed)		.960	.957	.924	.948

a. Test distribution is Normal.

b. Calculated from data.

c. Uji Homogenitas Varian Suasana Hati

Descriptives

SH

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini	Maxi
					Lower Bound	Upper Bound		
Pendhemen	16	26.81	8.28	2.07	22.40	31.22	14	39
Pengrawit	16	31.63	8.57	2.14	27.06	36.19	17	44
Total	32	29.22	8.64	1.53	26.10	32.33	14	44

Test of Homogeneity of Variances

SH

Levene Statistic	df1	df2	Sig.
.285	1	30	.597

ANOVA

SH

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	185.281	1	185.281	2.609	.117
Within Groups	2130.188	30	71.006		
Total	2315.469	31			

d. Uji Homogenitas Varian Respon Emosi

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Mini	Maxi
						Lower Bound	Upper Bound		
TAP	Pandhemen	16	-2.88	5.83	1.46	-5.98	.23	-14	5
	Pengrawit	16	14.25	2.35	.59	13.00	15.50	10	19
	Total	32	5.69	9.74	1.72	2.18	9.20	-14	19
TAB	Pandhemen	16	-6.88	4.41	1.10	-9.23	-4.52	-14	-1
	Pengrawit	16	3.44	2.85	.71	1.92	4.96	-2	7
	Total	32	-1.72	6.39	1.13	-4.02	.58	-14	7
TMP	Pandhemen	16	-.31	7.66	1.91	-4.39	3.77	-12	14
	Pengrawit	16	-12.69	3.42	.85	-14.51	-10.87	-22	-8
	Total	32	-6.50	8.58	1.52	-9.59	-3.41	-22	14
TMB	Pandhemen	16	6.44	2.85	.71	4.92	7.96	2	13
	Pengrawit	16	-17.88	4.73	1.18	-20.40	-15.35	-29	-10
	Total	32	-5.72	12.93	2.29	-10.38	-1.06	-29	13

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
TAP	14.074	1	30	.001
TAB	3.458	1	30	.073
TMP	12.568	1	30	.001
TMB	2.658	1	30	.114

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TAP	Between Groups	2346.125	1	2346.125	118.741	.000
	Within Groups	592.750	30	19.758		
	Total	2938.875	31			
TAB	Between Groups	850.781	1	850.781	61.697	.000
	Within Groups	413.688	30	13.790		
	Total	1264.469	31			
TMP	Between Groups	1225.125	1	1225.125	34.842	.000
	Within Groups	1054.875	30	35.163		
	Total	2280.000	31			
TMB	Between Groups	4728.781	1	4728.781	309.957	.000
	Within Groups	457.688	30	15.256		
	Total	5186.469	31			

7. REPEATED MEASURES SKALA DETEKSI EMOSI

Within-Subjects Factors

Measure: MEASURE_1

Stimulus	Dependent Variable
1	TAP
2	TAB
3	TMP
4	TMB

Between-Subjects Factors

		N
STATUS	0	16
	1	16

Descriptive Statistics

	STATUS	Mean	Std. Deviation	N
TAP	0	1.5000	.5477	16
	1	1.8281	.9735	16
	Total	1.6641	.7947	32
TAB	0	1.7031	.6660	16
	1	2.1719	1.0236	16
	Total	1.9375	.8822	32
TMP	0	1.7188	.7521	16
	1	2.0000	.9958	16
	Total	1.8594	.8797	32
TMB	0	1.7500	.7853	16
	1	2.3906	1.1179	16
	Total	2.0703	1.0045	32

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.	Eta Squared
TEMPO	Pillai's Trace	.339	4.793[a]	3.000	28.000	.008	.339
	Wilks' Lambda	.661	4.793[a]	3.000	28.000	.008	.339
	Hotelling's Trace	.513	4.793[a]	3.000	28.000	.008	.339
	Roy's Largest Root	.513	4.793[a]	3.000	28.000	.008	.339
TEMPO * STATUS	Pillai's Trace	.059	.586[a]	3.000	28.000	.629	.059
	Wilks' Lambda	.941	.586[a]	3.000	28.000	.629	.059
	Hotelling's Trace	.063	.586[a]	3.000	28.000	.629	.059
	Roy's Largest Root	.063	.586[a]	3.000	28.000	.629	.059

a. Exact statistic

b.
Design: Intercept+STATUS
Within Subjects Design: TEMPO

Mauchly's Test of Sphericity[b]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[a]		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
TEMPO	.767	7.617	5	.179	.858	.977	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b.
Design: Intercept+STATUS
Within Subjects Design: TEMPO

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
TEMPO	Sphericity Assumed	2.770	3	.923	3.577	.017	.107
	Greenhouse-Geisser	2.770	2.575	1.075	3.577	.023	.107
	Huynh-Feldt	2.770	2.932	.945	3.577	.018	.107
	Lower-bound	2.770	1.000	2.770	3.577	.068	.107
TEMPO * STATUS	Sphericity Assumed	.627	3	.209	.810	.492	.026
	Greenhouse-Geisser	.627	2.575	.243	.810	.476	.026
	Huynh-Feldt	.627	2.932	.214	.810	.489	.026
	Lower-bound	.627	1.000	.627	.810	.375	.026
Error(TEMPO)	Sphericity Assumed	23.229	90	.258			
	Greenhouse-Geisser	23.229	77.262	.301			
	Huynh-Feldt	23.229	87.964	.264			
	Lower-bound	23.229	30.000	.774			

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	TEMPO	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
TEMPO	Linear	2.082	1	2.082	10.463	.003	.259
	Quadratic	3.125E-02	1	3.125E-02	.121	.730	.004
	Cubic	.657	1	.657	2.071	.160	.065
TEMPO * STATUS	Linear	.225	1	.225	1.131	.296	.036
	Quadratic	9.570E-02	1	9.570E-02	.371	.547	.012
	Cubic	.306	1	.306	.966	.334	.031
Error(TEMPO)	Linear	5.968	30	.199			
	Quadratic	7.748	30	.258			
	Cubic	9.512	30	.317			

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Intercept	453.758	1	453.758	196.690	.000	.868
STATUS	5.908	1	5.908	2.561	.120	.079
Error	69.209	30	2.307			

STATUS

Measure: MEASURE_1

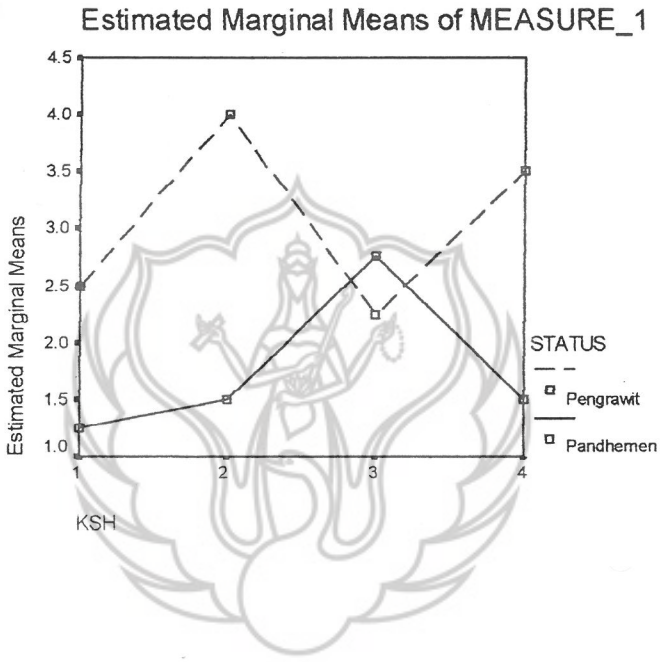
STATUS	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
0	1.668	.190	1.280	2.056
1	2.098	.190	1.710	2.485

8. HASIL DETEKSI EMOSI YANG SIGNIFIKAN

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Intercept	185.281	1	185.281	195.462	.000	.970
STATUS	13.781	1	13.781	14.538	.009	.708
Error	5.688	6	.948			



9. HASIL ANALISIS RESPON EMOSI MUSIKAL

a. Uji antar Perlakuan

Tests of Within-Subjects Contrasts

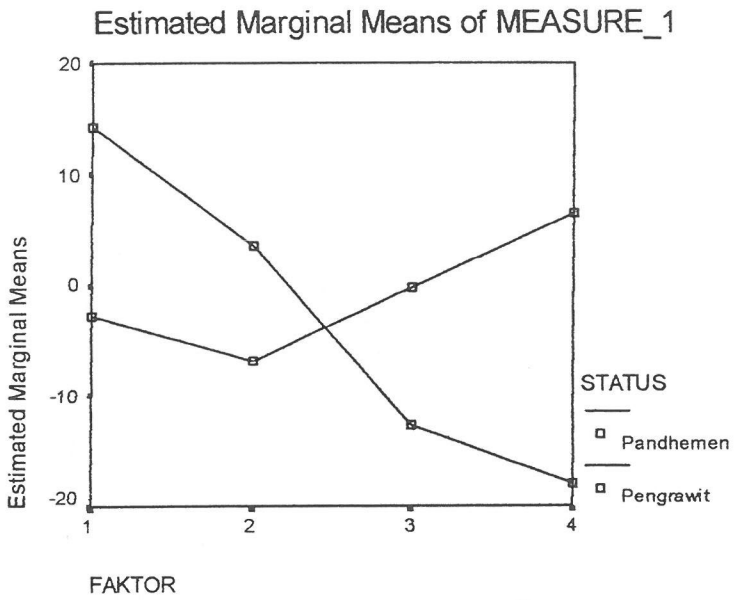
Measure: MEASURE_1

Source	FAKTOR	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
FAKTOR	Linear	2433.600	1	2433.600	151.155	.000	.834
	Quadratic	536.281	1	536.281	50.722	.000	.628
	Cubic	13.806	1	13.806	.710	.406	.023
FAKTOR * STATUS	Linear	8643.600	1	8643.600	536.870	.000	.947
	Quadratic	52.531	1	52.531	4.968	.033	.142
	Cubic	283.556	1	283.556	14.580	.001	.327
Error(FAKTOR)	Linear	483.000	30	16.100			
	Quadratic	317.188	30	10.573			
	Cubic	583.437	30	19.448			

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Intercept	544.500	1	544.500	14.387	.001	.324
STATUS	171.125	1	171.125	4.522	.042	.131
Error	1135.375	30	37.846			



b. Uji antar Status

Tests of Within-Subjects Contrasts _

Measure: MEASURE_1

Source	TEMPO 1	TIMBRE 1	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
TEMPO1	Linear		2096.281	1	2096.281	100.833	.000	.771
TEMPO1 * STATUS	Linear		8224.031	1	8224.031	395.584	.000	.930
Error(TEMPO1)	Linear		623.687	30	20.790			
TIMBRE1		Linear	351.125	1	351.125	23.792	.000	.442
TIMBRE1 * STATUS		Linear	703.125	1	703.125	47.643	.000	.614
Error(TIMBRE1)		Linear	442.750	30	14.758			
TEMPO1 * TIMBRE1	Linear	Linear	536.281	1	536.281	50.722	.000	.628
TEMPO1 * TIMBRE1 * STATUS	Linear	Linear	52.531	1	52.531	4.968	.033	.142
Error(TEMPO1*TIMBRE1)	Linear	Linear	317.187	30	10.573			

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Eta Squared
Intercept	544.500	1	544.500	14.387	.001	.324
STATUS	171.125	1	171.125	4.522	.042	.131
Error	1135.375	30	37.846